



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the review of the
governance arrangements as
reflected in the safety, quality
and standards of services at
UL Hospitals

June 2014

Safer Better Care

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is the independent Authority established to drive high quality and safe care for people using our health and social care services. HIQA's role is to promote sustainable improvements, safeguard people using health and social care services, support informed decisions on how services are delivered, and promote person-centred care for the benefit of the public.

The Authority's mandate to date extends across the quality and safety of the public, private (within its social care function) and voluntary sectors. Reporting to the Minister for Health and the Minister for Children and Youth Affairs, the Health Information and Quality Authority has statutory responsibility for:

Setting Standards for Health and Social Services – Developing person-centred standards, based on evidence and best international practice, for those health and social care services in Ireland that by law are required to be regulated by the Authority.

Supporting Improvement – Supporting health and social care services to implement standards by providing education in quality improvement tools and methodologies.

Social Services Inspectorate – Registering and inspecting residential centres for dependent people and inspecting children detention schools, foster care services and child protection services.

Monitoring Healthcare Quality and Safety – Monitoring the quality and safety of health and personal social care services and investigating as necessary serious concerns about the health and welfare of people who use these services.

Health Technology Assessment – Ensuring the best outcome for people who use our health services and best use of resources by evaluating the clinical and cost-effectiveness of drugs, equipment, diagnostic techniques and health promotion activities.

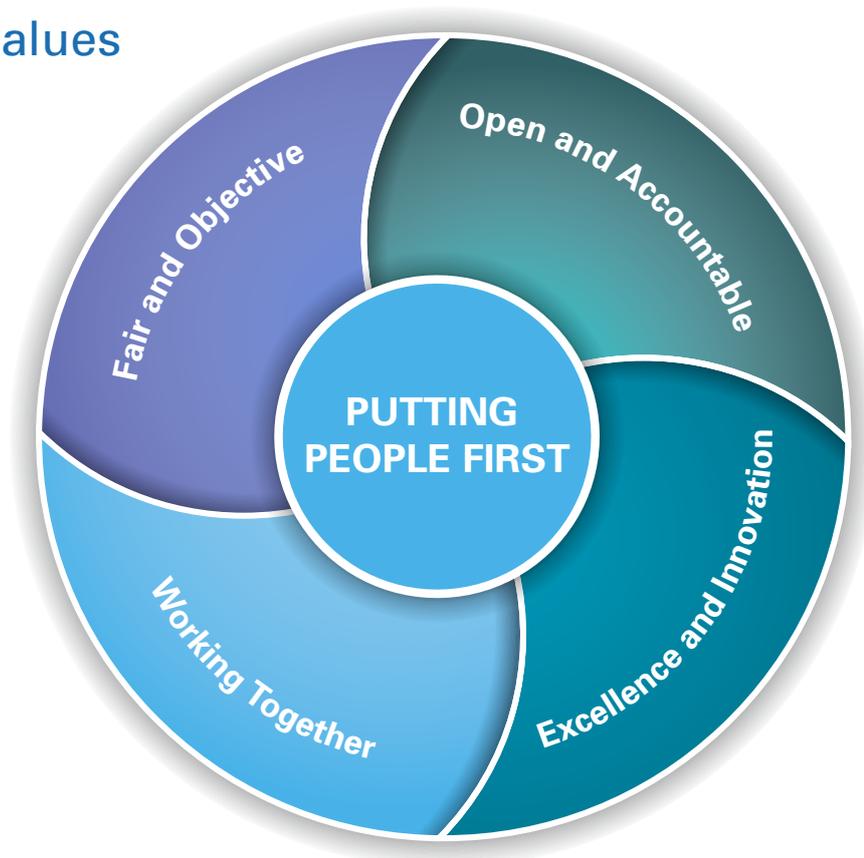
Health Information – Advising on the efficient and secure collection and sharing of health information, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.

Our mission

The mission of the Authority is derived from the statutory functions described in the Health Act 2007 and can be summarised as:

“Drive high quality and safe care for people using our health and social services.”

Our values



Putting people first – we will put the needs and the voices of service users, and those providing them, at the centre of all of our work.

Fair and objective – we will be fair and objective in our dealings with people and organisations, and undertake our work without fear or favour.

Open and accountable – we will share information about the nature and outcomes of our work, and accept full responsibility for our actions.

Excellence and innovation – we will strive for excellence in our work, and seek continuous improvement through self-evaluation and innovation.

Working together – we will engage with people providing and people using the services in developing all aspects of our work.

Find out more on the Authority’s website: www.hiqa.ie.

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Chapter 1 – Introduction

This report presents the findings from the review of the governance of UL Hospitals (referred to in this report as ULH or University of Limerick Hospitals) that has been undertaken by the Health Information and Quality Authority (the Authority). This review was undertaken in order to monitor progress with the implementation of the Authority's *National Standards for Safer Better Healthcare*⁽¹⁾ (referred to subsequently in this report as the National Standards). The Authority used the National Standards to identify specific features that should be in place in acute hospitals to achieve safe, high quality governance, the absence of which would be a cause for concern. The specific features selected for this review are outlined in Appendix 1. This is the first hospital group in the newly established hospital group structures⁽²⁾ to be reviewed against the National Standards. It was selected because a number of issues were identified as concerns. These are outlined in the background to the review.

Background to the review

The Authority had extensive engagement with the Health Service Executive (HSE) about a range of patient safety issues and the effectiveness of the governance arrangements in hospitals in the midwestern region since the 2009 publication of its *Report of the Investigation into the Quality and Safety of services and supporting arrangements provided by the HSE at the Mid-Western Regional Hospital, Ennis Hospital*⁽³⁾.

On 25 November 2010, the Authority wrote to the General Manager at the Mid-Western Regional Hospital, Limerick – now called University Hospital Limerick – regarding concerns about delayed access to emergency surgery and the management of mechanically ventilated patients in the Emergency Department (ED). A meeting was held in January 2011 to discuss these concerns. The Authority, the HSE Regional Director and senior management from the then Mid-Western Regional Hospital Group participated in that meeting. A letter was subsequently written to the Chief Executive Officer (CEO) of the HSE in February 2011, informing him that a special reporting framework was being established by the Authority to monitor the following in Mid-Western Regional Hospitals Group:

- risk management
- service change and transition in relation to:
 - capacity and demand
 - impact of change
 - resilience and reliability.

Terms of reference for the special reporting framework stipulated that the process was under the direction of the Authority, and that:

- the Mid-Western Regional Hospital, Limerick would provide updates prior to meetings
- the Authority would provide constructive challenges to initiatives and
- the Chairperson (Regional Director of Operations, HSE West) would summarise the progress and report recommendations at the final meeting.

A series of monitoring meetings between the Authority and Mid-Western Regional Hospital, Limerick ensued throughout 2011.

In February 2012, the Minister for Health announced that the hospitals of the Mid-Western Regional Hospital Group, now formally called UL Hospitals, would become one of the new (shadow) trusts. It was announced that the hospitals would come together on an administrative, non-statutory basis, into one hospital group, with one overall group management team, one financial budget and one whole-time equivalent (WTE) ceiling. At that point, a CEO was appointed to the group. In May 2012, the Department of Health's Special Delivery Unit⁽⁴⁾ became involved with an 'Intensive Support Group' to support the transition. A chairperson was appointed to ULH in June 2012 and an interim Board was appointed on a non-statutory basis pending new legislation in February 2013.

In August 2012 the Authority requested an update on the Department of Health's Special Delivery Unit's progress in a parallel process. Meetings were also held that month between the Authority and the Mid-Western Regional Hospital Group to discuss ongoing developments in the context of the special reporting framework. The Authority had significant concerns about the absence of interim formal clinical governance structures across the group. Information was also requested about the ED in the Mid-Western Regional Hospital, Limerick.

In October 2012, in accordance with the terms of the special reporting framework, the Authority wrote to the Director General Designate of the HSE, advising that the level and speed of progress that had been made to mitigate persistent and serious risks regarding leadership, governance and management, effective care, and use of resources, was slow and unsatisfactory. The letter stated that there were insufficient assurances to demonstrate that persistent shortcomings in the way that the hospital group was leading, governing and managing its services were being resolved. Recognising that it was essential for the HSE to progress the mitigation of risk in the region, the Authority highlighted key issues for action by ULH and formally handed over the special reporting framework to the Department of Health's Special Delivery Unit at that point.

In January 2013, a meeting was held between the Authority and Mid-Western Regional Hospital Group to review the governance arrangements, the quality and safety of services in the Emergency Department and maternity services, bi-directional patient flow within the hospital group and financial governance.

These discussions outlined that progress was being made in respect of a number of areas of concern, particularly in respect of governance and management structures within the group. It was concluded that the Authority would conduct an independent assessment of the progress using the National Standards and formally report on its findings as part of its assurance programme. This was confirmed to the CEO of the group on 19 July 2013.

The terms of reference of the review are as follows:

- to review the effectiveness of corporate and clinical governance arrangements in ULH
- to review progress made in respect of issues identified as concerns in November 2010 (see introduction)
- to review the impact of revised arrangements in the quality and safety of care through an examination of:
 - patient pathway – unscheduled care
 - critical care arrangements, to include outreach critical care arrangements in acute surgical wards and the ED
 - the availability of senior clinical decision makers at important points in the patient pathway
- to review any other issues identified in the course of the assessment
- to publish a report on the outcomes of the review with associated recommendations.

The review used the National Standards as the framework for assessment and ensured that the assessment was further underpinned through the use of relevant clinical guidelines and pre-existing measures of quality and safety and performance.

The review was carried out in accordance with section 8(1)(c) and other relevant provisions set out in the Health Act 2007⁽⁵⁾. The review was conducted by a team that was appointed and authorised by the Authority in accordance with section 9 of the Health Act 2007. The team carried out the review and exercised such powers as it had, pursuant to section 9 of the Health Act, including rights of entry, its rights to inspect premises, records and/or documents and its rights to conduct the interviews and rights to require explanations in relation to documents, records or other information. In addition, the Authority, in accordance with the Health Act 2007, engaged such advisors as it considered necessary in the undertaking of this review.

The review was designed with a quality improvement approach that was aimed at enabling ULH to demonstrate progress with the implementation of specific recommendations made by the Authority, compliance with the National Standards and to identify areas of good practice and opportunities for improvement.

In order to seek information about the impact of the changes on patient experience, the review included the assessment of patient pathways for which there is national and international evidence. The review of patient clinical and care pathways was used as a barometer of the effectiveness of the corporate and clinical governance arrangements on the quality and safety of care.

The review reflected and acknowledged the ongoing reorganisation of ULH as a hospital group and its development and transition towards trust status as outlined in the *Establishment of Hospital Groups as a transition to Independent Hospital Trusts (2013)*⁽⁶⁾. This includes a change programme that has been in train since the appointment of the group CEO in February 2012, the resultant changes to the effectiveness of the corporate and clinical governance arrangements, and their impact on service provision.

Profile

Geography and population profile

The geographical area that ULH serves extends from Limerick City and County to counties Clare and North Tipperary with hospitals located in Limerick City, Ennis, Croom and Nenagh. University Hospital Limerick is 41 kilometres southeast of Ennis Hospital, 45 kilometres southwest of Nenagh Hospital and 17 kilometres northwest of Croom Hospital. Travel between University Hospital Limerick and the other group hospital sites is expedited by the availability of a motorway and dual carriageway network.

The 2011 Census (see Table 1) recorded a 5.1% increase in the population in the Mid-West; County Limerick recorded the biggest increase with Limerick City recording a decrease of 4.5%. Limerick City as defined at the time of the Census excluded many of the suburbs⁽⁷⁾.

Table 1: Regional population changes between 2006 and 2011*

Population	2011	Percentage change 2006 – 2011
Clare	117,196	+5.6%
Limerick	57,106	-4.5%
Limerick County	134,703	+8.4%
Tipperary North	70,322	+6.1%
Midwest total	379,327	+5.1%

*Source: Central Statistics Office via HSE Mid-Western Regional Hospitals Group Service Plan 2013

Current system of service delivery

Prior to 2012, six acute hospitals in Limerick, Clare and North Tipperary were responsible for the delivery of acute hospital care for the population of Limerick, Clare, North Tipperary and surrounding counties. The six hospitals (University Hospital Limerick, Croom Hospital, University Maternity Hospital, Ennis Hospital, Nenagh Hospital and St John’s Hospital) operated under the auspices of the HSE Integrated Service Area of the Mid-West.

On 9 January 2012, a CEO was appointed to manage the six acute hospitals as one group, the Mid-Western Regional Hospitals Group. In the initial period following the formation of the group, each of the six hospitals maintained its previous governance and management structures.

A national initiative to establish six hospital groups was outlined in the Programme for Government (2011)⁽⁸⁾, *Securing the Future of Smaller Hospitals: A Framework for Development (2013)*⁽⁹⁾ and *Establishment of Hospital Groups as a transition to Independent Hospital Trusts (2013)*⁽⁶⁾. The Mid-Western Regional Hospitals Group became one of the six hospital groups and is now formally called UL Hospitals.

In keeping with these national recommendations, a new governance structure was established in ULH, comprising a Hospital Board (established on an administrative basis), a CEO, an Executive Management Team and a directorate structure. At the time of the Authority’s review, ULH was managed by a single executive team that was operating across five sites and was working in close collaboration with St John’s Hospital. St John’s Hospital is a voluntary hospital which, at the time of the Authority’s review, was retaining its own governance structure. A clinical directorate configuration was established in January 2012, with the appointment of a chief clinical director and four clinical directors with responsibility for providing clinical leadership and management, for diagnostics, maternal and child health, medicine and perioperative care.

ULH effectively became a single hospital delivering care on six different sites.

ULH, operating as a single group, facilitates the implementation of both the acute medicine programme (AMP)⁽¹⁰⁾ and *Securing the Future of Smaller Hospitals: A Framework for Development (2013)*⁽⁹⁾. Both of these national initiatives aim to ensure that high quality safe care is delivered correctly and in appropriate locations. Four generic hospital models (model 1, 2, 3 and 4*) are described for the purpose of defining the level of service that can be safely provided according to the available facilities, staff, resources and local factors.

ULH provides care to the population it serves via a model 4 hospital (University Hospital Limerick), two model 2 hospitals (Ennis Hospital and Nenagh Hospital) and a model 2S hospital (St John's Hospital). The University Maternity Hospital and Croom Hospital are stand-alone facilities that are classified as specialty hospitals which are devoted to women's health and orthopaedics. Croom Hospital is a dedicated elective orthopaedic centre for adults and children with 37 inpatient beds, 13 day beds and four rheumatology beds. The University Maternity Hospital has 83 obstetric beds and 19 neonatal beds.

Model 4 Services

As a model 4 hospital, University Hospital Limerick provides acute surgery, acute medicine, critical care, and tertiary care. University Hospital Limerick provides access to a 24-hour emergency department, a category 3** intensive care unit, a high dependency unit, a full range of medical and surgical services and allied health services. The hospital has 366 general inpatient beds and 76 day beds. In 2013 there were 29,259 inpatient admissions and 20,192 day case attendances. There were almost 60,000 attendances at the ED.

ULH is unique among the proposed hospital group structures nationally in that at the time of the Authority's review, it was the only group that did not have a model 3 hospital. Consequently, University Hospital Limerick is the only site in ULH with an emergency department and critical care services. Moreover University Hospital Limerick is the only site that can admit undifferentiated (all types of patients with any degree of seriousness or severity) medical patients and complicated surgical cases.

* Definitions of the four hospital models from the *Securing the Future of Smaller Hospitals: A Framework for Development (2013)*.

Model 1 hospitals are community hospitals which do not have surgery, emergency care, acute medicine or critical care.

Model 2 hospitals provide the majority of hospital activity including extended day surgery, selected acute medicine, local injuries, a large range of diagnostic services, specialist rehabilitation medicine and palliative care.

Model 3 hospitals provide 24/7 acute surgery, acute medicine, and critical care.

Model 4 hospitals are similar to model 3 hospitals but provide tertiary care and, in certain locations, supra-regional care.

** A Category 3 ICU is defined as an ICU which provides general critical care, multi-organ support, and multispecialty support.

Model 2 services

ULH has three model 2 hospitals, one of which (St John’s Hospital) is a model 2S* hospital (see Table 2). All of these deliver non-complex care as close as possible to patients’ homes.

Table 2: Model 2 and 2s hospital in ULH

Ennis Hospital	Nenagh Hospital	St John’s Hospital
Model 2	Model 2	Model 2S
50 inpatient medical beds	49 inpatient medical beds	89 inpatient beds (medical and surgical)
12 day beds	14 day beds	10 day beds
7 endoscopy beds	7 endoscopy beds	7 endoscopy beds
8 medical assessment beds	6 medical assessment beds	6 medical assessment beds
6 LIU* trolleys	5 LIU* trolleys	4 LIU* trolleys

* Local injury unit.

Since 2013, emergency care is available in the model 2 hospitals between 8am and 8pm via a local injuries unit and a medical assessment unit (MAU).

An MAU is an assessment unit that is designed to see specific groups of medical patients as referred by general practitioners (GPs). Such patients generally are categorised as being at low risk of requiring full resuscitation. Patients are seen and assessed in the MAU and diagnostic services such as radiology services, cardiology services and blood testing are arranged and delivered as appropriate. If admission is required the patient may access a medical bed in the model 2 hospital. Patients who deteriorate unexpectedly will have guaranteed transfer to the model 4 hospital within the group⁽⁹⁾.

Local injuries units are treatment centres located in model 2 hospitals for adult patients and for children aged over five. This is for the purpose of providing unscheduled emergency care for patients with non-life threatening or limb threatening injuries. A local injuries unit is linked to an emergency department and operates under the clinical governance of the Network Coordinator for Emergency Medicine. Patients with minor injuries such as suspected broken bones, sprains and strains, facial injuries, minor scalds and burns can self-refer to the local injuries unit or may be referred by their GP.

* A Category 3 ICU is defined as an ICU which provides general critical care, multi-organ support, and multispecialty support.

At the time of the Authority’s review, the model 2 hospitals were providing a range of services including:

Ennis Hospital	Nenagh Hospital
inpatient medicine	inpatient medicine
endoscopy	endoscopy
day surgery	day surgery
pre-op assessment	pre-op assessment
outpatient services	outpatient services
cardiology services	cardiology services
cardiac rehabilitation	infusion services
respiratory services	respiratory services
sleep apnoea	sleep apnoea
palliative care	palliative care
diabetic services	diabetic services

As a model 2S hospital, St John’s Hospital was providing the following services:

St John’s Hospital
inpatient medicine
endoscopy
urology
elective five-day non-cancer surgery
gynaecology
maxillo-facial surgery
gastroenterology
pain management

Chapter 2 – Methodology of the review

Overall approach

Terms of reference for this review were developed by the Authority and shared with ULH prior to commencement of the review, in keeping with the Authority's mission and corporate values.

Review team

The Minister for Health, with the approval of the Minister for Public Expenditure and Reform, approved the appointment of members of the Review Team as authorised persons to conduct the review, in accordance with section 70(1)(a) of the Health Act 2007 (the Act). This membership included Authority staff and an external representative who was nominated by the Irish Institute of Trauma and Orthopaedic Surgery.

Assessment framework

In accordance with the methodological approach, an assessment framework was developed by the Authority to guide the review approach. An assessment framework is a detailed description of the outcomes to be reviewed and the sources of evidence required in order to assess the compliance with the Standards being monitored. The assessment framework detailed the lines of enquiry to be explored in order to assess compliance with the Standards. Lines of enquiry are the questions or prompts that inspectors and authorised persons use to help inform their inspection or investigation. This assessment framework reflected the National Standards and findings of previous reviews and inspections that were carried out by the Authority^(3, 11,12,13,14,15).

The lines of enquiry were framed around the National Standards' themes of quality and safety. For the purposes of this review, the Authority focused on three of the themes in the Standards. These are:

- leadership, governance and management
- effective care and support
- safe care and support.

The Authority identified specific features in each theme that should be in place in hospitals as the foundation for safe, high quality governance. These are set out in Appendix 1.

Phases of the review

The Authority's review process took place over **four broad phases**. These were:

- Phase 1: Self-assessment (November/December 2013).
- Phase 2: Validation of self-assessment (January/February 2014).
- Phase 3: On-site assessment (February 2014).
- Phase 4: Reporting of findings (June 2014).

Phase one: self-assessment

The Authority provided ULH with a self-assessment template for completion. The self-assessment tool required ULH to declare the status of the implementation of a selection of recommendations from previous Authority investigation reports^(11,12,13,14,15).

The Chief Executive of ULH, as the delegated accountable officer, verified the completed self-assessment prior to its submission.

During Phase 1 the Authority also issued formal document and data requirements to the hospital group, in accordance with section 73 of the Act, which covered the following areas:

- corporate and clinical governance structure and management arrangements
- patient activity and patient outcome data in relation to services at ULH
- risk management systems including reported adverse incidents
- prevention and control of Healthcare Associated Infections.

Phase two: validation of self-assessment

The aim of the validation assessment was to verify the self-assessment that had been completed by ULH to demonstrate the level of progress with the implementation of recommendations made by the Authority. This involved an in-depth review by the Authority of the performance of the hospitals' compliance with the National Standards through:

- review and clarification of documentation submitted
- analysis of activity data that were submitted.

Phase three: on-site assessment

The on-site assessment was conducted at each of ULH's six sites. The aim of on-site monitoring was to gather further evidence of compliance with the specific standards through observation, document review and meetings with management and staff. This included:

- interviews with staff at ULH and the HSE
- exploring patient experiences, through observation of clinical areas and discussions with patients and staff
- review of healthcare records to further assess patient pathways* for unscheduled care including:
 - hip fracture
 - paediatric patients requiring emergency admission and transfer
- unannounced monitoring assessments of the *National Standards for the Prevention and Control of Healthcare Associated Infection* and a review of associated governance arrangements.

These are detailed further in the following sections:

Staff interviews

In accordance with section 73 of the Act, the Authority obtained information through interview with various individuals, including staff working in University Hospital Limerick and HSE staff at national level whose role related to aspects of the governance and quality and safety of services at the Hospital. The Authority interviewed selected individuals to clarify issues that may have been identified during the Review Team's review of documentation and data, to gather information generally, to consider any further information that was provided and to inform the review's findings.

As part of the specific assessment in relation to the prevention and control of infection, staff were asked about areas such as antimicrobial stewardship, outbreak management and infection surveillance within the group.

* For the purpose of this review the following definitions have been adopted:

- Care pathway: a set of quality measures that together describe a care pathway for a particular population or group of patients.
- Clinical pathway: a standardised set of actions aiming to optimise care for a particular clinical problem in line with evidence or guidelines.

Observation of clinical areas

In order to obtain information about the environment for the delivery of safe, high quality care to patients at ULH, members of the Review Team observed a number of clinical areas in each of the hospitals on an unannounced basis.

This included unannounced assessments in each of the hospital sites to monitor compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections*⁽⁶⁾. The aim of this unannounced monitoring assessment was to gather information, primarily through observation, about the effectiveness of the governance arrangements as they relate to environment and facilities hygiene and hand hygiene standards.

Additionally, the Review Team conducted a walkthrough that followed the pathway of a patient with a hip fracture from their presentation at the ED at University Hospital Limerick through to their admission on the trauma ward. In the course of this walkthrough team members spoke with staff and patients on the trauma ward who were recovering from hip fracture surgery.

The Review Team also conducted a walkthrough in University Hospital Limerick, following the paediatric pathway from the ED to the paediatric wards. Team members spoke with patients and parents of paediatric patients on this walkthrough about their care experience.

Patient healthcare record review

To further inform the patient experience and understand the patient pathway, the Review Team selected healthcare records for review, in accordance with section 73 of the Act, for a number of patients who had received care at the Hospital during 2013.

In order to review the quality and safety of care provided to patients who suffer a hip fracture, the Review Team evaluated the healthcare records of a random sample of 20 patients with a hip fracture, who had been cared for at University Hospital Limerick between 1 June 2013 and 29 November 2013. The healthcare record review assessed the care pathway of these patients from presentation and diagnosis in the ED, to their access to the orthopaedic ward, to timely surgery, to management on the ward post-operatively and to outcome data.

Delays in transferring paediatric patients out of the ED to the ward were one of the Authority's major concerns about University Hospital Limerick. A medical record review was performed by authorised persons to determine if children experienced delays in the ED. Records that relate to 37 paediatric attendances were reviewed. Paediatric patient records were selected for review if the patient was transferred to another hospital or spent long periods in the ED during a six month period (June-December 2013).

The Authority recognises that the volume of charts selected for both the hip fracture and paediatric review was comparatively small and that the healthcare record review may not have captured a consistently representative sample of these cohorts of patients at ULH.

Phase four: reporting of findings

The review involved the receipt and analysis of information from multiple sources including documentation and data, patient healthcare records, interviews, observation. In line with these processes, the review now outlines the conclusions of the Authority and key risk issues requiring action. The Authority also conducted a review of national and international best practice, within the scope of the terms of reference, to inform the review process and to support the findings and schedule of key risk issues requiring action that are made in this Report.

Due process feedback

The Authority provided a copy of the confidential draft report of the review's findings to the CEO of ULH for feedback. Every comment received was carefully considered by the Authority prior to the publication of the report.

Chapter 3 – Leadership, governance and management

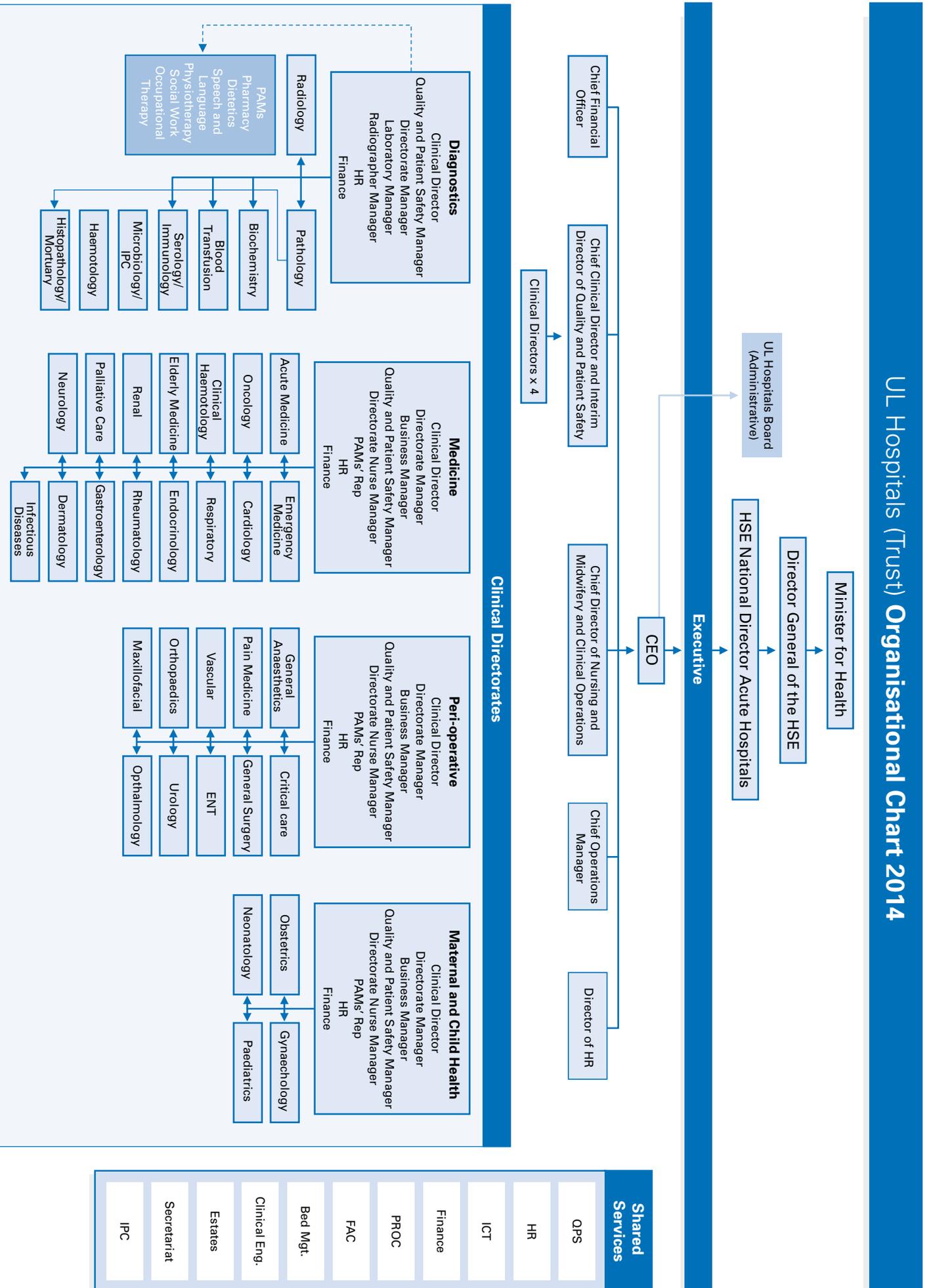
In December 2011, the Minister for Health announced that new management arrangements were being put in place for the group of hospitals in the midwestern regional area. Limerick Regional Hospital, Croom Hospital, University Maternity Hospital, Ennis Hospital, Nenagh Hospital and St John's Hospital were placed within a single management structure. At this time, it was stated that the hospital group (now called UL Hospitals) would have a single clinical governance model, one budget, one employment ceiling and a single CEO who would be responsible for group performance.

The HIQA Review Team assessed the above arrangements in the context of the efficacy of the leadership, management and governance arrangements at ULH against Standard 5 of the *National Standards for Safer Better Healthcare* and the progress in relation to the governance risks which had been previously identified by the Authority in October 2012 and which included:

- The corporate and clinical governance arrangements in the hospital group were not sufficient to lead and manage it effectively
- The risk management structures at the MWRHG were not sufficiently corporately weighted in the context of clinical leadership, clinical involvement and corporate governance to ensure sustained delivery of safe care across the hospital group
- There was an absence of effective clinical leadership or appropriately structured clinical governance arrangements, with no lead clinical director and no evidence of arrangements being put in place to mitigate these risks.

In reviewing the leadership, governance and management arrangements at ULH, the Authority acknowledges that substantial governance and operational changes have been undertaken at ULH since the CEO was appointed in January 2012, and since the subsequent appointment of the Chairman of the Board and the formation of a clinical directorate structure. These appear to have had a positive impact on services that are delivered by the hospital group. The Authority was provided with a diagram of the governance structure at ULH (see Figure 1).

Figure 1: ULH Governance Structure



The following sections of this report outline the core elements of the governance structure at ULH.

Board of Directors

In June 2012, the Minister for Health appointed a chairperson to ULH in line with the Government's reform programme and as a step towards the formation of hospital trusts and the proposed governance arrangements. The formation of a Board of Directors is a new and welcome development at ULH, with the first Board meeting convened in February 2013.

At the time of the Authority's review, the stated objectives of the Board were to provide strategic direction and leadership to ULH in the attainment of its goals by establishing effective corporate governance arrangements and obtaining assurance on the quality of services by holding the hospital's clinical and non-clinical executives to account. The Authority reviewed the composition of the Board of Directors and its draft code of governance. The Board comprises eight non-executive members, including the Chairperson. An assistant national director of the HSE is secretary to the board. The CEO and some members of the Executive Management Team (the Director of Finance, the Lead Clinical Director, the Director of Nursing and a section officer) attend Board meetings, but are not members of the Board. The draft Code of Governance sets out the code of standards and behaviour for the Board of Directors.

ULH reports that it is fully compliant with the HIQA recommendation⁽¹²⁾ to put in place a mandatory board induction programme for all new Board members and executive directors. Documentation that was submitted to the Authority showed that a Board induction session had been attended by five members of the Board on 27 June 2013. The Review Team reviewed the curriculum and noted that the induction – which was facilitated by an external advisory company – focused at a high level on the current governance arrangements for ULH. It also provided an outline of the work that was underway on a governance framework for future hospital groups and on the development of a governance roadmap from the planned transition arrangements to the achievement of trust status for the hospital groups. The Authority was informed that the board induction also included a meeting with the Director General of the HSE.

The programme did not, however, include the topics that had been recommended by the Authority⁽¹⁾ to include roles and responsibilities of board members, roles and responsibilities of executives, corporate and clinical governance, financial oversight, ethics and conduct. It is recommended that the Board evaluate the induction programme in light of the recommendations previously published by the Authority in 2012.

A tangible weakness in the observed Board governance arrangements was the absence of a statutory framework to allow the Board to comprehensively perform its governance and assurance functions.

As a consequence, at the time of the Authority's review, the CEO did not report to the Chairman of the Board. Moreover, the Board could only function in an advisory capacity and did not formally approve the strategic direction for ULH. This situation was explored at interview where the Review Team was informed that the Board had not received national guidance or an indication of when this anomaly would be examined and or addressed. In addition, an area of significant corporate governance risk that was highlighted in University of Limerick Hospitals' risk register – which was reported at interview and which was reviewed in the documentation that was received – was the continued parallel governance arrangements in St John's Hospital.

St John's Hospital is a voluntary hospital and is financially accountable to University Hospital Limerick by a service agreement. St John's Hospital is part of ULH but has its own statutory Board of Management and its own Executive Management Team (Appendix 2). Consequently the ULH's Board of Directors has no formal role in St John's Hospital and no formal accountability for the quality and safety of services that were being provided there. The Authority recommends as a priority that this arrangement should be reviewed, that recommendations which were made previously by the Authority and recommendations which were included in the report titled *Establishment of Hospital Groups as a transition to Independent Hospital Trusts (2013)*⁶ should be considered and implemented in ULH (and other hospital groups). Pending any legislative amendments, the HSE and the Department of Health must, in the interim, give clear direction in relation to these recommendations in the context of emerging hospital groups and single boards.

There was minimal reference in the ULH's Strategic Plan 2014-2016 to St John's Hospital or its future role. In addition, it was reported that the Board of St John's Hospital was working on the development of its own separate strategic plan. This illustrated a lack of clarity in respect of the governance and accountability arrangements between ULH and St John's Hospital. It is imperative that ULH should function as a single entity with common purpose and direction. Consequently, the Authority recommends that the governance arrangements, strategic directions and operational services across all hospitals within ULH should be agreed, concurrently designed and implemented to guarantee the optimum use of resources and to ensure the most advantageous delivery of services to all patients in its catchment area.

Notwithstanding these challenges, it was confirmed at interview, and through review of documentation from February 2013 to October 2013, that the Board had commenced a process of monitoring the implementation of strategic initiatives as outlined in the Mid-Western Regional Hospitals Group Service Plan 2013 and more recently in the ULH's Strategic Plan 2014-2016. There was also a sense of Board engagement with hospital staff and external stakeholders.

There was, however, no evidence of formal discussion at Board level about patient complaints, trends in clinical incidents, adverse events or the prevention and control of Healthcare Associated Infections.

The Authority was informed that the formation of two further board sub-committees to include Audit and Patient Quality and Safety would provide assurance in the future to the Board about the efficacy of services at ULH.

National governance arrangements

At a national level the CEO reports directly to the Health Service Executive's National Director of Acute Hospitals for Acute Hospitals*. It was confirmed at interview that the HSE National Director of Acute Hospitals had delegated overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services within ULH to the CEO of ULH. It was also confirmed that the CEO and HSE National Director of Acute Hospitals meet formally to discuss the performance of ULH including finance, hospital activity and implementation of national guidelines and standards.

At the time of this review, St John's Hospital had retained its pre-existing management structures in the form of its own board of management, medical board and Executive Management Team. This arrangement was further explored with the HSE National Director of Acute Hospitals who confirmed that there is currently no national policy or guidelines to facilitate the effective inclusion of voluntary hospitals into the new national hospital groups. This anomaly was highlighted as problematic by the CEO of St John's Hospital at interview. The HSE National Director of Acute Hospitals stated that progress towards greater integration of St John's Hospital would be facilitated by new legislation that would abolish the HSE and facilitate the creation of the hospital trusts. Notwithstanding this, both at national and local levels, all executives who were interviewed acknowledged the difficulties inherent in the current situation but agreed that there was an improving working relationship and communication across both executives.

The HSE National Director of Acute Hospitals demonstrated a comprehensive understanding of the changes that had been undertaken at ULH, with particular reference to the evolving corporate and clinical governance structures. In reviewing the quality and safety of services, the HSE National Director of Acute Hospitals acknowledged that ULH continued to face significant challenges. Chief among these challenges were the risks that were being caused by overcrowding in the ED, reorganisation of acute bed capacity, access to a comprehensive patient rehabilitation pathway, further reconfiguration of surgical services and improving the effectiveness of the medical assessment units (MAUs) and the local injuries units as appropriate. The HSE National Director of Acute Hospitals described his role as one of enabling and supporting the CEO who has flexibility in organising the service to meet performance targets.

* In accordance with the provisions of Section 16H, Health Service Executive Act 2013.

However, the National Director was satisfied with progress to date in ULH. The reported deficit of not having a model 3 hospital within the group was explored with the HSE National Director of Acute Hospitals. He explained that the further reconfiguration of services, improvement in bed utilisation processes, optimisation of the referral pathways and utilisation of the local injuries units, needed to be further developed in order to compensate for the lack of a model 3 hospital. However, he simultaneously acknowledged ULH's fiscal constraints at the time of this review.

Overall, the HSE National Director of Acute Hospitals acknowledged that the improved performance of ULH resulted from the establishment of corporate and clinical governance structures, the establishment of the Board of Directors and the involvement of clinicians.

Executive Management Team

It was observed at the time of the Authority's review that ULH's corporate governance, with the exception of St John's Hospital, was grounded in a single Executive Management Team which formally convened in November 2012. This was both significant and welcome. However, the lack of complete assimilation of St John's Hospital remains problematic and detracts from full integration of services provided by ULH.

At the time of the Authority's review, the Executive Management Team was responsible for ULH's clinical activities which were governed under a single robust structure. The Executive Management Team, led by the CEO, included the Chief Clinical Director and Interim Director of Patient Safety and Quality (the same person), the Chief Director of Nursing and Midwifery, Chief Operating Officer, the Chief Financial Officer (appointed in 2013), the Director of Human Resources, and four clinical directors. It was reported that the Executive Management Team was sharing corporate accountability for the effective governance and management of ULH and has arrangements in place to accordingly advise and assure the Board of Directors. It was confirmed at interview, and verified in the documentation which was reviewed, that the Executive Management Team was well attended with a structured agenda and schedule.

At the time of the Authority's review, the CEO was accountable for ensuring that there was an effective process in place for agreeing the annual objectives of the Executive Management Team members, which was reflective of the delegated accountabilities and responsibilities for executive directors. This process was supported by a clear scheme of delegation of accountability through a system of clinical directorates. At the time of the review this structure and process was in the early stages of development and therefore the total effectiveness of the Executive Management Team was not fully assessed.

In late 2012, the Authority had advised the HSE of the need to appoint a chief financial officer in ULH. This appointment was made in 2013, which the Authority welcomes. The Chief Financial Officer reported that there was evidence of increasing corporate discipline and accountability in relation to financial management and cost-effectiveness. This was confirmed at interview. Specific reference was made to increased accountability being in place through the reporting of the financial performance of the group via the audit committee as a sub-committee of the Board. The impact of the Chief Financial Officer on financial controls was also positively commented on by the National Director of Acute Services.

It was confirmed at interview that the members of ULH's Executive Management Team had attended or were attending a Diploma in Leadership and Quality in Healthcare run by the Health Service Executive and the Royal College of Physicians of Ireland. In addition, members of the Executive Management Team, including the CEO, were holding a quarterly directorate performance review meeting with senior members of each directorate. A review of the documentation submitted confirmed that these meetings were at an early stage of development and focused primarily on operational issues. Furthermore, it was reported at interview that ULH was planning to implement a formal performance management framework to strengthen these arrangements.

The ULH's Executive Management Team confirmed at interview that staff investment and staff development will be required for the successful initiation of the necessary leadership and management changes to support the transition towards Trust status. In response, at the time of review ULH had started the process of facilitating leaders at all levels in maintaining and improving the skills, knowledge and competencies that is required to fulfil their roles and responsibilities in delivering high quality and safe care. For example, ULH was working with external providers to develop a leadership programme for nurse managers.

A well governed and managed service monitors its performance to ensure reliability so that it provides care, treatment and support that are of consistently high quality with minimal variation across the system. Prior to 2013, the Authority was not assured that robust arrangements were in place in the main hospital or integrated across the other sites for monitoring the efficacy of services and for providing a response in a timely manner to identified risks.

At the time of this review, ULH had completed its self-assessment against the National Standards and had identified areas that required continuous investment and development. Particular areas that had been identified by ULH as requiring prioritised attention included complaints management, coordination and integration of patient care, monitoring of the effectiveness of care delivery, responding to and learning from quality and safety information, supporting staff in delivering a safe quality service and medical record management. This was explored at interview.

Staff acknowledged that they had a significant journey to take in achieving compliance with the National Standards. Staff had consequently prioritised these areas for attention in their 2014-2016 strategy.

In addition, the CEO and the Executive Management Team submitted documentation that outlined their progress in implementing the recommendations of the 2009 *Report of the investigation into the quality and safety of services and supporting arrangements provided by the Health Service Executive at the Mid-Western Regional Hospital Ennis Report* and in implementing subsequent investigations that had been undertaken by the Authority. Evidence of progress included the regional reconfiguration of surgical services, the centralisation and governance of emergency services, the redesign of critical care and paediatric services and the implementation of the Acute Medicine Programme. Also in 2013, ULH had introduced a simplified medical roster, appointed acute medicine physicians and patient flow managers and had started the process of centralising the laboratory services.

The evidence that was reviewed confirmed that ULH had reviewed the findings and recommendations of *The Investigation into the safety, quality and standards of services provided by the Health Services Executive to patients, including pregnant women, at risk of clinical deterioration, including those provided in University Hospital Galway, and as reflected in the care and treatment provided to Savita Halappanavar*, and had initiated a reciprocal action plan to mitigate identified deficits in the ULH's maternity services. The authorised persons further validated the efficacy of this process whilst on site in University Maternity Hospital.

Furthermore, the Executive Management Team was gathering and providing further assurance to the HSE, the hospital Board and the general public through the reporting of nationally mandated key performance metrics against the 2013 HSE service plan targets. A review of these confirmed that ULH was compliant in a number of areas. However, there were key non-compliances with national targets in the following areas:

- the management of attendances in the context of patient waiting time and ambulances waiting to transfer patients into the ED
- elective procedures (surgical and medical) conducted on the day of admission
- the number of delayed patient discharges.

There was evidence that these performance reports were discussed at national level with the HSE and that they were reported at local level. ULH reported that it had commenced several operational initiatives since July 2013 to improve compliance with these national targets. However, at the time of the on-site review in February 2014, ULH was still not meeting these targets. Compliance with these particular targets would potentially increase inpatient bed availability.

In addition, there was no evidence to indicate that the Executive Management Team routinely monitored locally agreed patient experience metrics, such as the number of quality and patient safety audits conducted, the percentage of complaints investigated within the HSE time frame of closed within 30 working days; and key performance indicators associated with Healthcare Associated Infection. This was further explored at interview. It was of significant concern that while these metrics were being gathered and presented to the Quality and Patient Safety Committee, there was no evidence to indicate that these were discussed at executive or Board levels.

The clinical directorate structure

At the time of this review another important positive finding was the development and resourcing of four distinct clinical directorates responsible for the delivery of clinical care across all the ULH's sites representing diagnostics, maternal and child care, medicine and perioperative care. At the time of the Authority's review, the directorate structures were largely consistent including a clinical director, directorate manager, clinical governance manager, directorate nurse manager (excluding diagnostics) and representatives from the professionals allied to medicine, human resources and finance.

The clinical directorate structure, though it had only been recently established at the time of the Authority's review, was becoming well recognised across all the ULH's sites, other than at St John's Hospital, which was not reflected in the directorate system at the time of the Authority's review. Medicine, Perioperative Care and Diagnostic Care directorates are accountable and responsible for their relevant clinical services provided in Ennis, Croom and Nenagh Hospital. The University Maternity Hospital was included in the Maternal and Child Care directorate.

The effectiveness of the clinical directorate structure was explored in an interview with directorate management staff. In these interviews, staff outlined a sense of increased connection with all levels of management within the hospital group. Staff in the Maternal and Child Health Directorate stated that being part of the group generated a greater sense of strategic direction in respect of maternity and children's services, with the ultimate vision described as being the co-location of the maternity unit on the University Hospital Limerick site and greater differentiation of clinical staff in respect of paediatric and neonatal services.

It was reported at interview that efforts to that point in respect of governance had focused on building an organisational structure that would facilitate the delegation of accountability for quality, safety and performance when the group will complete its transition to independent hospital trust status. The Review Team met with front-line staff across ULH's sites. They demonstrated understanding of the directorate structure. The organisational arrangements that were reviewed confirmed the integration of these sites within the directorate structures.

However, it was confirmed at executive level that full buy-in by all senior clinical staff was an evolving process. For instance, at the time of the review, not all senior clinical staff were rotating throughout the different sites. Also not all senior staff were participating in the ULH's combined medical and anaesthetic on-call rosters.

Throughout this review, ULH emphasised the importance of the role of the clinical director and its impact in achieving ULH's strategic objectives and reconfiguration of services. However, in reviewing the organisational reporting structures it was noted, for example, that the full directorate team did not report to the clinical director. The directorate manager reported directly to the chief operations manager. This was explored at interview when staff confirmed that this arrangement was posing challenges within two of the four directorates. Consequently the Authority recommends that the effectiveness of this reporting arrangement should be reviewed as a priority at executive level.

Conclusion

Significant positive progress has been made since 2012 in ULH in respect of the governance concerns that were identified by the Authority in 2012.

The appointment of the CEO, the Board of Directors, clinical directors and formation of an Executive Management Team has significantly enhanced the clinical and corporate governance arrangements at ULH. The integration of Croom Hospital, Nenagh Hospital, Ennis Hospital and the Maternity Hospital confirms that the group is moving in a constructive way. Staff at levels who spoke to authorised persons clearly articulated the new clinical directorate structures and reporting relationships. ULH has defined a clear strategic direction which prioritises quality and safety initiatives, self-assessment against the *National Standards for Safer Better Healthcare*, national guidelines and recommendations from national investigations.

The merging of voluntary and statutory hospitals into a single governance structure is challenging. This is to be expected. Both executives have developed a good working arrangement, notwithstanding these challenges. Whilst awaiting the necessary legislative changes there is an opportunity to further enhance these arrangements and explore a shared strategic direction in the context of service delivery. The national governance arrangements with ULH are described as being both supportive and enabling thereby allowing the CEO, Executive Management Team and Board of Directors flexibility in reorganising and restructuring their services as appropriate. This is welcomed by the Authority.

ULH's corporate and clinical governance structures are in the early stages of development. The Authority recognises and acknowledges the change process that has been undertaken and the commitment of staff to achieving this. Notwithstanding these welcome developments, there are gaps in the assurance process which must be addressed as a priority. These include routine monitoring of locally agreed patient experience metrics by the Executive Management Team such as agreed metrics for the number of quality and patient safety audits conducted; the percentage of complaints investigated within the legislative time frame of closed within 30 working days; risk reports; and key performance indicators, such as those associated with Healthcare Associated Infection.

Chapter 4 – Quality and patient safety

This report's introduction outlines significant concerns that the Authority had identified in relation to the patient quality and safety arrangements at University Limerick Hospital (ULH) in 2011 and 2012. Concerns of particular import had included:

- the effectiveness of the risk management processes, including complaints management processes and the hospital's capacity to respond to the complainant in a timely and appropriate manner
- the quality and safety of patient services in the ED with a particular emphasis in relation to the potential risks associated with the following:
 - critically ill ventilated patients who were being cared for in the ED
 - an inappropriate environment for children who were attending the ED and delays in transferring paediatric patients from the ED to an inpatient facility
 - a structured bi-directional patient pathway was not in place across the hospital group, thereby potentially compromising the bed capacity at the MWRHL and the associated capacity to offer a consistent quality service to patients who required both scheduled and unscheduled care.

The Authority reviewed and assessed the status of each of these risks within the new corporate and clinical governance arrangements at ULH. In addition, over the period of the review, the Review Team observed a high risk in relation to overcrowding in the ED. Although not specified in the initial terms of reference, the significance of this necessitated its inclusion in the review.

Risk management – Quality and Patient Safety Directorate

ULH reported at interview that throughout 2013 it had reviewed and assessed its quality and safety structures and had formally inaugurated the Quality and Patient Safety Directorate in December 2013. Figure 2 identifies the functions within the directorate and their respective reporting relationships.

At the time of the Authority's review, the Quality and Patient Safety Committee had overall accountability for planning, implementing and evaluating quality and safety management systems and processes within ULH. It was reported at interview that the ULH's Quality and Patient Safety Committee reported directly to the Executive Management Team, who in turn updated the Board of Directors.

Staff explained that the ULH's quality and safety structures were integrated through site-specific operational implementation teams that were feeding into several ULH committees such as the Infection Prevention and Control and Hygiene Committee (to be discussed in further detail in chapter 5) and the Drugs and Therapeutics Committee. Each subcommittee reports into the ULH's Quality and Patient Safety Committee. However, at the time of the review, it was noted and of concern to the Authority that there was no health and safety committee at ULH. At the time of preparation of this report, the hospital group reported that it was reviewing this anomaly.

The management of adverse incidents was a function of the Quality and Patient Safety Directorate. There was evidence that adverse incidents were reported and trended. Over 1,400 incidents were reported for January-October 2013. Interviews with front-line staff in all sites confirmed that adverse incidents were being reported. However, there were reported inconsistencies in the level and timeliness of feedback to staff once an incident had been reported. The Risk Manager in the Maternal and Child Health Directorate was an exception in this respect. She was reported to be proactively engaged in ensuring that lessons from internal and external incidents were brought to the attention of clinical staff. It was outlined that the Risk Manager within the Directorate would attend clinical handovers to outline learning issues to staff within the clinical environment. This was confirmed by ward staff.

Further detail was also given by staff within the University Maternity Hospital of the Directorate's response to the *Investigation into the safety, quality and standards of services provided by the Health Service Executive to patients, including pregnant women, at risk of clinical deterioration, including those provided in University Hospital Galway and as reflected in the care and treatment provided to Savita Halappanavar*.

Managers stated that there had been a multidisciplinary response to the findings and recommendations of the investigation. This had been led by one of the consultant obstetricians. Significant progress had been made in respect of the introduction of the Irish Maternity Early Warning System (I-MEWS) within the University Maternity Hospital, the roll-out of which had already been audited. Other progress in respect of the recommendations was noted in the development of a sepsis guideline, for which associated training was being organised four times annually. The Authority was also informed about the implementation of cardiocotography (CTG) training for clinical staff and the introduction of a high risk anaesthetic clinic.

The Authority also observed that the National Early Warning System (NEWS) had been successfully rolled out and audited throughout the other sites and directorates. Nursing staff at interview demonstrated that NEWS was embedded in the culture across the hospital group.

For the purpose of the review, ULH was required to submit examples of quality improvement initiatives that had been implemented following the investigation of identified clinical incidents for the period 1 January 2013 to 31 October 2013. Only two initiatives were submitted. In reviewing these there was no evidence to demonstrate that the findings were disseminated across all the directorates or among the wider multidisciplinary team.

Many of the front-line staff who were met by the Review Team did not appear to be familiar with the Quality and Patient Safety Directorate structure and or its function. A senior staff member suggested that the structure was potentially too complex. This is a matter of concern to the Authority. Minutes of the Quality and Patient Safety Committee did not demonstrate that it was formally reviewing reports that were being provided by subcommittees including the Drugs and Therapeutics Committee and the Infection Prevention and Control and Hygiene Committee. Furthermore a review of the minutes of the Executive Management Team meetings from 9 October 2013 to 13 November 2013 inclusive did not provide evidence that the Executive Management Team receives structured feedback from the QPSC. In the absence of such oversight it is difficult for the Review Team to see how the CEO and the Executive Management Team can receive timely quality and safety information and feedback from patient forums.

These findings were brought to the attention of senior staff. They acknowledged that the risk management processes were not as robust as they should be and stated that they were reviewing their risk management processes in place at that time. As a result, they had developed a quality improvement plan (QIP) to include a process for ensuring that recommendations and learning from incidents were disseminated across ULH, that assurance reporting to the Executive Management Team, Quality and Patient Safety Committee and clinical directorates was formalised and that quality controls were put in place. These actions were assigned to named staff, with phase 1 of the plan due for completion in April 2014.

These arrangements were further explored at interview, where ULH explained that it was experiencing some beginner's challenges. The Executive Management Team stated that the successful integration of the Quality and Patient Safety Committee is an important priority. Until the structure becomes fully embedded, the Authority recommends that the Executive Management Team should monitor the functioning of the Quality and Patient Safety Committee. Headline performance metrics that would be easy to collect, should be identified for routine monitoring and reporting to the CEO and the Executive Management Team. The Executive Management Team should consider the introduction of quality and safety walkrounds in line with the HSE toolkit as a further assurance mechanism.

The Authority acknowledges that a number of initiatives had been introduced at ULH to ensure corporate awareness and timely responsiveness to the changing demands associated with scheduled and unscheduled care and the allocation of resources. One of the main initiatives was the development of a structured teleconferencing process across the hospital sites named 'the safety huddle'. The principal aim of the 'safety huddle' was to identify and manage capacity, expected workload and risks in each area and speciality. Staff in many areas confirmed the value of the safety huddle in enabling increased awareness of staffing deficits, bed capacity and the identification of deteriorating medical patients or critically ill pregnant women that may require transfer to University Hospital Limerick for specialised intervention.

The daily 'safety huddle' was being led by a member of the Executive Management Team, with senior clinical staff participating from all ULH's sites and specific areas, including the ED, bed management, operating theatres and intensive care. Participants were reporting from a structured template with the lead identifying areas that require immediate intervention and or planned action.

Members of the Review Team attended the 'safety huddle' on three consecutive days. They witnessed plans to transfer patients from University Hospital Limerick to Croom Hospital, Ennis Hospital, Nenagh Hospital, and St John's Hospital in order to create capacity in the main hospital, based on information shared.

Staff across all sites articulated how effective they found the 'safety huddle' and how it had enhanced the culture of one service delivered across many sites, had directed a more proactive approach to bed management and the sharing of resources to include the redeployment of staff. However, senior management in St John's Hospital expressed concern that on occasions they were being asked to relocate their staff to another site, into areas of increased risk, as determined in the safety huddle. They stated that the logistical and indemnity arrangements of sharing staff between two employing bodies were posing problems for them. At times they felt that such suggestions arising from the safety huddle appeared to ignore the impact that the depletion of staff within their services would have on the quality and safety of those services.

Management of patient complaints

At the time of this review, ULH had set a clear strategic objective to effectively manage and learn from complaints. To achieve this objective ULH had developed a standardised methodology for the management of patient complaints which is aligned to the national HSE complaints management process, *Your Service Your Say*.

The group's system of complaint management is an example of centralising a process that was previously held and individually managed by each hospital site. The process of complaint management across five sites (excluding St John's Hospital) since March 2013 was observed as being supported in a standard operating procedure (SOP) document. Staff interviewed and the documentation reviewed confirmed that once a complaint was received anywhere in ULH, it was forwarded to the Patient Safety and Quality Directorate which is then responsible for implementing the SOP within the aligned time frame (that is, a report would be finalised within 30 days). Adherence to the SOP is monitored by the Quality and Patient Safety Directorate.

The Review Team reviewed ULH's complaints register from January 2013 to October 2013. The review showed that ULH staff were following the standard operating procedure in forwarding complaints to the Quality and Patient Safety Directorate. Complaints that were reviewed included concerns relating to paediatric care in the ED, extended waiting times in the outpatient department and EDs, ineffective pain management during endoscopy, dissatisfaction with care or information received and staff attitudes. A review of the QPSC meeting minutes showed that the QPSC received quarterly feedback on complaints.

The Authority confirmed at interview that senior staff were aware of the process of complaint management and were aware of the main complaints relating to their specific areas of responsibility. However, senior staff reported that cross-directorate information, for example, relating to the trending of complaints, was not formally shared. This potentially militated against the benefits of collectively improving patient services by sharing and learning from patient complaints at ULH.

Notwithstanding this, there was evidence of learning following investigations into some specific complaints and that this learning had been put into practice to change the experience for other service users. ULH submitted a number of site-specific quality improvement initiatives that had been implemented which demonstrated evidence of acknowledging, learning from and responding to complaints. Such initiatives included but were not limited to:

- the opening of protected Acute Medical Unit beds
- facilitating car parking arrangements for disabled drivers
- retraining of staff
- changes in policy to facilitate expectant fathers to accompany their partner to the admissions office
- development and implementation of a phlebotomy protocol for patients affected by thalidomide
- addressing individual staff attitudinal concerns.

The Quality and Patient Safety Committee identified a performance target whereby 85% of complaints would be investigated and concluded within 30 working days. ULH's complaint statistics for January to October 2013 indicated that 57% of complaints which were received had not been investigated and closed within 30 days.

The Review Team found no evidence that complaints were being reviewed at Board level, Executive Management Team level or at meetings between the CEO and the Directorates in minutes and or action points that were submitted for review. This finding was of significant concern to the Authority as this particular risk had been previously identified in 2012 and 2013. This issue was further explored at executive level. ULH agreed that there were major non-compliances in relation to complaint response times and the dissemination of cross directorate learning. They subsequently reviewed the management of complaints in a quality improvement plan that was submitted to the Authority. Senior management outlined the contingency arrangements that had been put in place which included a reorganisation of staff roles and responsibilities to address this deficit. The Authority recommends that the executive must ensure that the appropriate monitoring arrangements will be in place to ensure:

effective, timely and sustainable management of patient complaints at ULH

that implementation of the previously mentioned quality improvement plan is developed, identifying an accountable person and the necessary corrective actions within defined timelines in which this risk will be addressed.

Unscheduled Care

The hospital group's Emergency Department (ED) provides emergency care for adult and paediatric patients with a core focus on the diagnosis, treatment and management of acute and urgent injuries, trauma and illnesses. At the time of the Authority's review, the ED was open 24 hours a day, 365 days a year and was providing service to in excess of 60,000 patients a year, in the catchment areas of Clare, North Tipperary, and Limerick.

Emergency services in ULH are delivered via an emergency care network consisting of an ED located at University Hospital Limerick supported by local injuries units in Ennis Hospital, Nenagh Hospital and St John's Hospital. The ED in University Hospital Limerick provides services for undifferentiated patients (all types of patients with any degree of seriousness or severity) with acute and urgent illnesses or injuries.

The area that was being used to accommodate the existing ED had originally been ward accommodation which had been converted for use as the ED. The current structure has the potential to challenge staff in providing a safe quality service. A new ED with designated paediatric facilities was under construction at the time of the Authority's review, which was due to open in 2016.

Overcrowding in the ED

During the announced assessment the number of admitted patients waiting on trolleys in the ED peaked at 37 patients. Staff in the ED reported that, although this number of patients who were awaiting admission was higher than average, over the previous four months the ED had experienced a persistent trend of increasing numbers of patients who were awaiting admission to inpatient facilities on trolleys.

At the time of the review, space within the ED was limited, making it difficult for staff to move patient trolleys, or even to move around the area easily. Several ill patients were cared for on trolleys in the communal areas and corridors of the ED as there were no patient treatment bays available. Ill patients were placed close together with little or no privacy or dignity. Adequate cleaning of the ED environment was impossible as floor space was largely taken up with trolleys, hindering access to horizontal surfaces and floors. The resuscitation room was relatively small, with limited space for treating patients or for moving trolleys in and out when this was required.

There were no single rooms for facilitating isolation of patients with communicable infections. Patients with confirmed or suspected communicable infections were cared for in the main ED, and it is of significant concern to the Authority that these facilities could not provide protection from, for example, airborne infection. Single patient isolation rooms are recommended for patients with communicable infections in order to prevent the spread of infection to others nearby. There was only one toilet in the main ED for all patients, both paediatric and adult, including those with suspected or confirmed communicable diseases. Three additional toilets were available in the patient and public waiting area. The Review Team was informed that, in the near future, three rooms in the ED will be designated as isolation rooms. This level of overcrowding compromised the quality and safety of care for patients in the ED.

The Authority was informed that an executive decision had been made that once all inpatient and day beds were fully utilised, the risks associated with overcrowding would be centralised by retaining admitted patients on trolleys within the ED rather than accommodating patients on ward corridors. This decision is of significant concern to the Authority as the infrastructure and the associated environmental limitations of the Emergency Department at University Hospital Limerick already poses severe challenges to meeting the normal demands of emergency services. At the time of the Authority's review, the ED was not an environment that was conducive to safely managing large volumes of admitted patients for extended periods of time. Compounding this, hospital data shows that pre-hospital emergency response ambulances were being significantly delayed when waiting to transfer patients from the ambulance trolley to an ED trolley. Consequently, at the time of the Authority's review, pre-hospital emergency care services were potentially unable to respond to critical calls within a safe time frame.

The Authority also observed that a critically ill non-ventilated patient who required a high dependency care bed remained in the ED until their condition improved to the extent that they no longer required a high dependency bed. This practice is unacceptable.

While the Review Team was on site, the regional major incident plan was successfully activated in response to a further surge in activity that was created by extreme weather conditions. The activation demonstrated the ability of ULH to respond effectively to a crisis. It is noteworthy that activation of the major incident plan released capacity that was not previously available to ULH and resulted in 50 extra discharges from the system which reduced the number of patients who were waiting on trolleys in the Emergency Department from 37 to 6 within approximately eight hours.

Patients who presented with minor injuries were treated in a minor injuries unit within the ED. Consequently, at times when the ED is at maximum capacity, patients who present with minor injuries are seen in an overcrowded and noisy environment. At the time of the review, the ED at ULH was overcrowded. Thirty seven admitted patients were awaiting transfer to an inpatient ward. Conversely on the same day members of the Review Team witnessed an empty local injuries unit in Nenagh Hospital. Staff in all three local injuries units reported under utilisation of their local injuries units with monthly attendances varying from 555 to 711.

Staff expressed concerns that local communities were not using the local minor injuries* units in Ennis and Nenagh hospitals, with patients either self-referring or being referred by their general practitioners (GPs) to the ED at ULH instead. In addition, ED staff highlighted that patients with minor injuries who were attending the ED at ULH were not being actively redirected to these units. Staff in all local injuries units voiced the opinion that initial triage of patients in the ED in University Hospital Limerick prior and or post-registration could be used to divert patients to those local injuries units who had the capacity to receive them. In addition, staff in the local injuries units in Ennis Hospital and Nenagh Hospital expressed an interest in exploring strategies to extend the clinical criteria accepted as appropriate for care in a local injuries unit.

At interview, the HSE's National Director of Acute Hospitals agreed that utilisation of the local injuries units was suboptimal and stated that there was a requirement to embark upon a further communications campaign to highlight their existence and benefits to local communities and referring GPs. The Authority suggests that the communication campaign should not be restricted to local populations but should be expanded to include the population of Limerick City and County to utilise the local injuries units in Ennis Hospital, Nenagh Hospital and St John's Hospitals. Such a communication campaign should emphasise the reduced waiting times in the local injuries units and the benefits of restricting use of the ED in University Hospital Limerick to those who require services that can only be accessed there.

The Authority acknowledges that diverting attendees from the ED in University Hospital Limerick to the local injuries units would not reduce the number of patients on trolleys in the ED who would be awaiting admission. However, any initiative that has the potential to reduce the volume of patients who present in the ED would positively impact the quality, safety and timeliness of care for all ED patients.

ULH acknowledged the risks associated with the suboptimal delivery of care to numbers of admitted patients waiting in the ED and have included this in the department and corporate risk register. Irrespective of the controls that are reported to be in place at ULH, the Authority believes it is unacceptable that admitted ill patients aged 14 years and over were being left for extended periods in an environment that is totally unsuitable. It is acknowledged that a new ED is under construction and should be completed in 2016. However, in order to reduce this serious risk, ULH must review and cease this practice as a priority. ULH, in consultation with the HSE's National Director of Acute Hospitals, must find a range of interim solutions to deal with excessive trolley waits, inpatient bed capacity and overcrowding within the ED.

* Local injuries units, as described by the Health Service Executive in 2013, aim to provide unscheduled emergency care for patients with a specific list of non-life threatening or limb threatening injuries under the clinical governance of the consultants in emergency medicine in University Hospital Limerick. Local injuries units were open seven days a week from 8am to 8pm. Staffing in the local injuries units was largely consistent between sites and included a nurse, an advanced nurse practitioner and an emergency physician.

These issues were raised as issues of serious concern with the CEO of ULH and the HSE's National Director of Acute Hospitals at the time of the review and at subsequent meetings.

The periods of significant overcrowding in the ED were negatively impacting on both staff and patients in the Department and were causing considerable challenges to staff who were trying to provide the requisite standard of care for all adult and paediatric patients in this suboptimal physical environment. Persistent overcrowding in the ED was negatively impacting on the care of all patients. It was impeding access to patients for care and observation, reducing privacy and dignity, increasing the risk of transmission of infection and it was preventing adequate cleaning of the department. Such persistent overcrowding adds to the challenge of providing effective care to critically ill and paediatric patients.

Critical care pathway

A critically ill patient may require a life-saving intervention which involves the use of a mechanical ventilator which assists or replaces a patient's own spontaneous breathing. Mechanical ventilation is routinely used in emergency departments (EDs). International evidence has found that patients who receive mechanical ventilation in EDs for extended periods of time have poorer morbidity and mortality outcomes^(17,18,19). The Joint Faculty for Intensive Medical Care in Ireland's *National Standards for Adult Critical Care Services* state that patients receiving mechanical ventilation should be cared for in an intensive care unit (ICU)⁽²⁰⁾.

The Authority recognises that both nationally and internationally there are challenges in critical care bed availability. Consequently, ventilated patients may stay for longer periods in the ED that they should^(21,22,23,24). It is incumbent on all acute hospitals to ensure that any associated risks are mitigated, that patients are managed safely, that care is delivered by appropriately qualified staff and that the patient is transferred as quickly as possible to an appropriate ICU. In addition, as the ED is the main access point for critically ill patients, it is imperative that hospitals maintain patient access to the resuscitation areas within an ED.

Critically ill patients who were attending the ED or those who were deteriorating while in the ED were routinely managed in the resuscitation area within the department. This area has three assessment bays. Two of these were assigned to adult patients and one was a dual-purpose bay, meaning that it may have accommodated either an adult or a paediatric patient.

A senior clinical decision maker (ED register or consultant) was always available. However, it was reported by clinical staff that due to the number of critically ill patients who were attending the ED, it was often necessary to place a fourth patient trolley in the resuscitation area.

During interviews with staff, it was reported that, similar to risk issues that had been identified in 2010 and 2011, there were still significant delays in the admission of ventilated patients from the ED to the ICU. The Faculty of Intensive Care Medicine/The Intensive Care Society in the UK has outlined Core Standards for Intensive Care Units⁽²⁵⁾. These state that any patients who require intensive care should be admitted to ICU within four hours of making the decision to admit. Data that were collected by ULH and which were provided to the Authority showed that between the 22 July 2013 and 7 February 2014, 50 patients were mechanically ventilated in the ED. However, the data that was provided was incomplete and only showed the duration of ventilation in the ED for 36 of the 50 patients. The length of time that the 36 patients had received mechanical ventilation in the ED ranged from 20 minutes to 20 hours with 44% of these ventilated patients reported to have been in the ED for longer than four hours.

The risk of patients who were receiving mechanical ventilation in the ED while awaiting transfer to an ICU bed at University Hospital Limerick had remained on the ED's risk register since 2010. In early 2012, it was reported to the Authority while it was on site in the hospital that ventilated patients were being cared for in the ED by nursing staff who did not have the necessary competencies to care for mechanically ventilated patients and without anaesthetic support.

To address this risk, a local protocol was developed to guide the management of the ventilated patient in the ED while they await transfer to a bed in the ICU. The protocol details that ventilated patients in the ED are to be prioritised for admission to the ICU and it outlines the roles and responsibilities of the emergency medicine team, the admitting team and the anaesthetic team in the care of the patient. It was verified through the data that was reviewed and at interview that timely anaesthetic cover was always available. Where there was a delay in transferring the patient to ICU, clinical care was shared by the critical care, emergency medicine and the in-house team who had accepted the patient. The medical teams reported that, at the time of the Authority's review, there were clear governance arrangements and all members clearly identified their specific roles and responsibilities. It was also reported that there was good communication between anaesthesia, the emergency medicine and on-call team. The admitting team held overall clinical responsibility for the patient.

ULH reported that all ED consultants who were working at University Hospital Limerick had received training in intensive care medicine, while ED specialist registrars complete a six-month placement in the ICU as part of their training. Registrars and senior house officers were receiving general training in the care of the critically ill patient as part of their ED rotation.

The nurse manager in charge of the ED was responsible for assessing and ensuring that nursing staff were trained and supported in the nursing management of a ventilated patient while in the ED.

At the time of the review, staff training was ongoing. Staff reported that there was a programme in place to ensure that all nursing staff will attend one-off specific training on the care of a ventilated patient. However, there was no evidence of scheduled ongoing nurse training to supplement this. University of Limerick Hospitals should, as a matter of priority, review this arrangement and consider the introduction of a mandatory ongoing programme to ensure that staff competencies will be maintained and that staff will have enhanced confidence in their ability to manage ventilated patients.

The Authority's analysis of evidence and its on-site review demonstrated that ULH had established local arrangements for safely managing ventilated patients who were awaiting transfer to ICU. ULH has arrangements in place to evaluate compliance with the protocol for the care of the mechanically ventilated patient in the ED. However, there were inconsistencies in the raw audit data that was provided to the Authority, and data for a number of recorded patients were incomplete. These assurance arrangements should therefore be reviewed.

Not all critically ill patients require mechanical ventilation. It was reported to authorised persons that critically ill non-ventilated patient can also remain for extended periods in the ED while awaiting transfer to the High Dependency Unit (HDU) and or ICU. Consequently the Review Team reviewed the critical care arrangements at ULH.

At the time of the review, ULH was unique among the national model of existing and proposed hospital groups in that it was the only hospital group that does not have a model 3 hospital*. This means that University Hospital Limerick was the only site within the hospital group that was providing critical care services. It is incumbent on ULH to maximise its resources to ensure a safe quality service and effective bed utilisation for scheduled and unscheduled patients who require critical care. Staff did not report any difficulties with transferring critically ill patients from model 2 hospitals to the ED or when a bed was available to the ICU in the main hospital.

Since the Authority was previously in ULH as part of its special reporting framework with the Mid-Western Regional Hospital, Limerick (2011), the hospital had opened a new ICU. The ICU opened in December 2013. At the time of the Authority's review, seven of the 12 ICU beds were operating at full capacity, with 100% bed occupancy. It was reported that an eighth bed was occasionally opened, depending on the availability of nursing staff to provide the requisite nurse-patient ratios.

ULH also had a HDU with six beds which accommodated critically ill patients who did not require mechanical ventilation. However, it was reported that patients who required mechanical ventilation could also be cared for in the HDU when there is no ICU bed available.

* Model 3 hospitals provide 24/7 acute surgery, acute medicine and critical care.

In these cases, nursing staff were redeployed, worked additional shifts or the number of available HDU beds was reduced to provide a 1:1 nurse-patient ratio for the ventilated patient.

In addition, it was reported when beds were not available in either the ICU or the HDU, ventilated patients may be transferred from the ED to the recovery area in theatre. In 2013 there were 11 documented occasions where mechanically ventilated patients were cared for in the recovery room by theatre nursing staff, not all of whom have specific ICU or HDU training. However, it was reported that anaesthetic staff were always available to manage patient care. The Authority recommends the local policy/protocol should be expanded to guide the management of the ventilated patient in the Recovery Room while they await transfer to an ICU bed.

The *National Standards for Adult Critical Care Services in Ireland* state that all critically ill patients should be managed by a critical care service under a single governance structure and that the critical care units should have agreed admission and discharge policies⁽²⁰⁾. The Review Team explored these arrangements at ULH in the context of clinical governance structures and effective critical care bed utilisation. It was reported that, at the time of the review, there was no single individual responsible for the management of the ICU and HDU, with the ICU clinically governed by anaesthetics, with patients in the HDU under the clinical governance of their primary physician. Staff who were interviewed reported that the lack of a single governance system was a factor that contributed to the delays in decision-making about the transfer of patients from ICU to HDU or from HDU to an inpatient bed, which in turn caused delays when trying to make beds available for patients who were mechanically ventilated in the ED.

It is essential that the Executive Management Team immediately review the current arrangements and implement a single clinical governance structure. At the time of review, staff reported that resources had been allocated to open the additional ICU beds. However, staff who were interviewed also reported protracted delays in the national recruitment process. This national recruitment process was further explored with the HSE National Director of Acute Hospitals, who outlined that the process was currently under review. ULH must now review this arrangement in consultation with the HSE and fast-track the recruitment and appointment of staff to open the remaining ICU beds, as a priority.

Paediatric patient pathway

There are approximately 16,000 paediatric emergency presentations to University Hospital Limerick ED annually. The case mix includes acute medical illness (9,000), acute trauma and surgical emergencies (7,000).

The Authority had previously evaluated the ED paediatric facilities in 2012 and had identified that these should be reviewed as a priority. In a parallel process, the National Emergency Medicine Programme had also issued national recommendations including:

- Services should be reconfigured to ensure that each ED:
 - has at least one paediatric nurse per shift
 - is resourced to provide comprehensive 24-hours-a-day 7-day-week emergency services including facilities for full resuscitation for children
 - has an area where children are seen that is child- and family-friendly and that there is complete audiovisual separation from adults.
- The age cut-off for treatment in a paediatric ED should be 16 years.

In response, ULH with funding secured from the National Capital Plan designed and accommodated an interim paediatric waiting and assessment area beside the existing ED, pending the completion of a new ED in line with the Mid-Western Regional Hospitals Group Service Plan 2013. The Review Team visited this newly developed area which consists of a paediatric-specific waiting room and an open plan eight-bay room for assessment of paediatric patients and three single rooms. The waiting area has been decorated in a child-friendly manner with wall art and colourful furniture. Regrettably, this facility was not in use at the time of this review. It was reported that staffing levels for managing the unit were not finalised.

The Authority's team reviewed the arrangements in place on Monday 10 February 2014 and again on Tuesday 11 March 2014 and found the following:

- Paediatric patients were assessed and managed in a chronically overcrowded environment with no audiovisual separation from adults.
- Paediatric patients were divided into two clinically distinct care streams – medical; and surgical and or trauma:
 - Medical paediatric cases were seen by the paediatric medicine team in three paediatric assessment rooms in the main ED. Surgical or trauma paediatric cases were seen by the emergency medicine team in the main ED with referral to surgical or other specialities as appropriate.
- A bay in the main resuscitation room in the ED was designated for the treatment of critically ill paediatric or adult patients.

- There were no isolation facilities in the ED and only one toilet in the ED for all children and adult patients.
- ULH defined paediatric attendees as 0-14 years up to the eve of their 14th birthday.

On one of the days that the Review Team was assessing the Emergency Department, nine of the 11 nurses on duty in the ED had paediatric experience. In addition it was reported that every effort was being made to ensure that nurses with paediatric experience were rostered on to the night shift. Like other hospitals nationally, ULH was experiencing problems with recruiting paediatric trained ED nurses. Nursing staff training records were reviewed by the Review Team; these indicated that staff were not up to date in paediatric life support (PLS) training. At interview it was reported that a number of re-training days were scheduled for throughout 2014.

In 2012, the Authority had identified a risk in the timely transfer and admission of paediatric patients from the ED to the paediatric inpatient wards. A medical record review was conducted by the Review Team to determine if children experienced a delay in transferring to the ward from the ED.

A sample of 38 paediatric medical records for patients younger than 16 years who attended the ED between June and December 2013 was reviewed. Medical records of patients with prolonged waiting times, patients who were transferred to another hospital and patients that were admitted to University Hospital Limerick, were included, in line with the Terms of Reference of the review.

The findings were as follows:

- Fourteen of these patients were discharged home from the ED.
- Fifteen paediatric patients aged less than 14 years who required admission to University Hospital Limerick were triaged, assessed and admitted within six hours of registration⁽²⁶⁾.
- Three patients waited between 18 and 23 hours for admission. These patients were aged between 14 and 16 years. Significantly while awaiting an inpatient bed, these patients who met the national criteria for definition as a paediatric patient remained in the main ED with no audiovisual separation from adults.
- Four other patients also aged between 14 and 16 years were admitted overnight to the ED Clinical Decision Unit*, where they were accommodated with adult patients.
- Two paediatric patients who required transfer to a tertiary referral hospital were transferred without delay.

* A clinical decision unit (CDU) is a designated area of an emergency department (ED) in which patients undergo a short, intense period of investigation or observation under the care of a consultant in emergency medicine, up to a usual maximum length of stay of 24 hours.

In addition to medical record review, Authorised persons spoke with parents of paediatric patients in the ED at the time of the on-site component of the review. The parents interviewed stated that they found the ED to have been overcrowded and to have been an unpleasant experience for their child. However, they said they were seen and triaged in a timely fashion and were transferred to the ward once a decision was made to admit their child.

During the patient record review the Authority noted that data recorded on the ED IT system did not correspond to data recorded in the medical record. For example, when the discharge time was unknown or staff did not discharge the patient from the IT system, the discharge time was defaulted to the time that the ED clerical staff closed out the patient file. This time may differ by several hours from the actual time of discharge. Considering that such data are provided to and used as HSE national key performance indicators, any data transcribed, entered and used should be accurate and ULH should have a robust process to validate such data. This is essential.

The medical record review highlighted that a number of the patient medical records that were reviewed were not in compliance with the HSE's 'Standards and Recommended Practices for Healthcare Records Management'⁽²⁷⁾. For example, in some records it was not possible to decipher the name, job title or bleep and or identification number of medical staff.

The transfer of critically ill paediatric patients was discussed at interview with ED staff and paediatric specialty representatives. It was reported that the transfer of critically ill neonates to tertiary centres was not problematic as the National Neonatal Transport Programme (NNTP), for neonates up to six weeks old, was available 24 hours a day, seven days a week. At the time of the Authority's review the NNTP was being serviced by neonatal teams from the three Dublin Neonatal ICUs and therefore did not require staff from University Hospital Limerick to accompany the patient. However, at the time of the review there was no national system for the retrieval and transport of critically ill paediatric patients over six weeks of age. Nonetheless, it was reported that there is a national telephone number linking ULH with the national paediatric intensive care units to enable the timely acceptance of critically ill children. In order to structure the transfer process, ULH had developed a supporting document entitled 'Pathway for the Care and Transfer of Critically Ill Infants and Children (2014)'.

ULH categorised paediatrics as 0-14 years up to the eve of their 14th birthday. ULH reported that this was a historical practice and would be reviewed when the paediatric national model of care is finalised. Therefore, children aged between 14-16 years were being managed as if they were adults, which is contrary to the National Emergency Medicine Programme. In the context of waiting 18 to 24 hours from registration to admission in an overcrowded emergency department, the Authority considers this to be inappropriate.

Furthermore it is imperative that ULH expedites the opening of the paediatric facility and improve the experience for children and their parents and or carers while attending the ED.

Bi-directional patient flow

In 2011 and 2012, the Authority had identified concerns that ULH had not been maximising bed capacity across the group. At that time, the corporate governance and clinical directorate structure had not been developed and, apart from surgery, there was limited integration of clinical services. The Authority recognises that meeting the demands of scheduled and unscheduled care is a balancing act and managing the associated risk is a continuous challenge. However, it is imperative that University Hospital Limerick, as the group hub and model 4 hospital, should ensure that its bed utilisation strategies maximise accessibility for patients with complex clinical needs and those patients who are acutely ill. This means that patients must be discharged in a timely manner and or transferred from the hub to the Model 2 hospitals as appropriate.

Chapter 1 of this report outlines the corporate governance structures that ULH had implemented. These include a defined clinical directorate structure, which is supported by an integrated operational management structure.

The hospital reported that these arrangements – combined with the appointment of patient flow managers in 2013, the daily 'safety huddle' with the optimum transfer of medical patients to the Model 2 and 2S sites in Nenagh Hospital, Ennis Hospital and St John's Hospital and of orthopaedic patients to Croom Hospital – were maximising bed utilisation. The hospital performance reports confirm that, at the time of the Authority's review, ULH's overall average length of patient stay (ALOS) for all inpatient discharges and deaths was within that national target of 4.5 days. However, it was not maximising the number of patients who were being admitted on the day of surgery or procedure. Such maximisation could potentially further increase bed availability.

The authorised persons explored these arrangements with bed management personnel who reported that they were transferring as many patients as possible from the main hospital to the other sites. However, they identified challenges such as the fact that patients could refuse to be transferred and that not all clinicians were allowing their patients to be transferred to the model 2 sites. This potentially prevents the timely transfer of patients suitable for care in a model 2 hospital, resulting in their occupation of a model 4 hospital bed until they were being discharged.

It was only possible to transfer a patient from ULH if there was a bed available in one of the other group hospitals. During this review, authorised persons went to the six group sites. On each occasion inpatient beds and day beds were available across the group.

It is noteworthy that Nenagh Hospital was not performing as well as other sites regarding average length of patient stay and delayed discharge numbers. This suggests that there is potential to improve its bed management processes. In addition, senior managers and other staff identified the potential – particularly in Nenagh Hospital and Ennis Hospital – to increase surgical capacity.

Staff at ULH identified potential for transferring less complex clinical services from the main hospital to the other sites. However, they cited challenges, particularly in the context of resource allocation and public and local political expectation of what and where clinical services would be provided. The potential to reorganise and reallocate services from the main hospital to the other sites was explored by the Authority at interview locally in ULH and with the HSE National Director of Acute Hospitals of Acute Hospitals. All parties acknowledged that there is further potential to increase bed utilisation and transfer less complex clinical services and their aligned resources. Whilst recognising the challenges, the Authority recommends that the Board and Executive, with the support of the HSE National Director of Acute Hospitals of Acute Hospitals, actively explore options to increase bed availability in the model 4 hospital, as a priority.

The urgency of maximising bed utilisation and configuring clinical services was further reinforced when the Review Team went to the Emergency Department in ULH as outlined above.

Conclusion

At the time of the review, work was ongoing in strengthening the Quality and Patient Safety Directorate and centralising the risk management processes to include the management of complaints. There was evidence that staff understood these processes, reported incidents and forwarded complaints to the appropriate person. However, it was a concern that the timely management of patient complaints continued to be a problem and was not effectively managed within University of Limerick Hospital's target of 30 working days. In addition staff reported that the dissemination of learning from adverse events and or complaints was for the most part at directorate level only. However, at the time of the review ULH had developed a quality improvement plan for delivery within a defined time frame to manage these deficits.

The practice of using the Emergency Department for admitted patients aged 14 years and over while they are waiting for an inpatient bed, must be reviewed and must cease. This must be a priority. At the time of the Authority's review, the Emergency Department was not fit for purpose and as a consequence ULH was building a new department which was due to open in 2016. In the interim, ULH must:

- maximise current inpatient and day bed capacity
- re-evaluate the current allocation from the main hub of less complex clinical services with their aligned resources to other sites within the group
- expedite the opening of the critical care beds
- develop a single clinical governance structure for critical care and
- increase if possible the use of the local injuries units through more effective advertising and communication with local communities and referring GPs.

Furthermore, in recognition of the limitations of the current structure and the inherent risks to quality and patient safety, the Authority recommends that the opening of the new emergency department should be reviewed at a national level and expedited, and that interim arrangements aimed at maximising patient safety should be instituted.

Chapter 5 – Prevention and control of healthcare associated infections in ULH

Prevention and control of Healthcare Associated Infections in healthcare facilities is a core aspect of patient safety and is an indicator of quality of care. Successful infection prevention and control in a healthcare setting is dependent on best practice in individual clinical care and its delivery requires expert input both operationally and strategically.

In order to provide quality assurance and to drive quality improvement in public hospitals, the Authority performs announced and unannounced inspections of acute hospitals' compliance with *National Standards for the Prevention and Control of Healthcare Associated Infections*, referred to subsequently in this report as the Infection Prevention and Control Standards.

For the purposes of this review the Review Team examined documentation that was requested by the Authority in relation to the prevention and control of Healthcare Associated Infections in University Hospital Limerick. The Review Team also interviewed the Infection Prevention and Control Team and the Executive Management Team during the on-site component of the review.

Findings in relation to the prevention and control of Healthcare Associated Infections are presented under the following headings:

- accountability for the prevention and control of Healthcare Associated Infections
- integrated risk management structures and processes
- prevention and control of Healthcare Associated Infections - surveillance, performance measuring and monitoring
- Infection Prevention and Control Team
- infection prevention and control committees
- communicable and or transmissible disease control
- microbiological services
- outbreak management
- unannounced monitoring assessments.

Accountability for the prevention and control of Healthcare Associated Infections

Prior to the formation of ULH, the prevention and control of Healthcare Associated Infections was governed locally within the individual hospitals that now comprise ULH. Under the management arrangements and the single governance structure outlined above and which were observed at the time of the Authority's review, the CEO had full accountability and responsibility for the prevention and control of Healthcare Associated Infections across all sites in ULH. Clinical and diagnostic services in ULH were aligned across four directorates that report into the Executive Management Team. Overall executive accountability, responsibility and authority for the quality and safety of the service were delegated by the CEO to the Chief Clinical Director who was chair of the Quality and Patient Safety Committee and was an Executive Management Team member.

The Infection Prevention and Control Committee and the Antimicrobial Stewardship Committee were reporting to the Quality and Patient Safety Committee on matters relating to the prevention and control of Healthcare Associated Infections. They in turn were reporting to the Executive Management Team. Management confirmed that the Infection Prevention and Control Committee was giving feedback about infection surveillance, risks and other concerns across all sites to the Quality and Patient Safety Committee.

HSE key performance indicator data relating to healthcare associated infection and alert organism surveillance reports were being produced regularly by the Infection Prevention and Control Team and for individual directorates. However, there was no evidence of discussion of PCHCAI metrics or risks in minutes of meetings of the Quality and Patient Safety Committee or upward communication of this information to the Executive Management Team or Board. It was established that the Quality and Patient Safety Committee was in the early stages of development. The chairperson of the Quality and Patient Safety Committee reported that it has not yet addressed the area of performance management of prevention and control of Healthcare Associated Infections. This is of concern to the Authority and was explored further with the Executive Management Team.

The Executive Management Team indicated that since the reconfiguration, its primary focus in relation to the prevention and control of Healthcare Associated Infections had been on building an Infection Prevention and Control Team and on developing an associated programme of work. The Executive Management Team concluded that performance oversight of the prevention and control of Healthcare Associated Infections was not achievable until the Infection Prevention and Control Team was adequately established and that its priorities for 2014 were focused more generally on performance, performance measurement and development of business intelligence systems.

These findings indicate that the prevention and control of Healthcare Associated Infections was not yet embedded in the ULH's governance structure and that information on prevention and control of Healthcare Associated Infections was not being formally communicated from the Quality and Patient Safety Committee to the Executive Management Team and the Board as recommended in the Infection Prevention and Control Standards. Monitoring performance of prevention and control of Healthcare Associated Infections against service objectives, benchmarking and reporting on this performance through the relevant governance structures is necessary in order to provide assurance to the Board and the Executive Management Team regarding the provision of high quality, safe care.

Integrated risk management structures and processes

There was evidence that efforts had been made since University Hospital Limerick reconfiguration to standardise hospital hygiene services across all sites. A nurse manager at Assistant Director of Nursing grade was appointed in November 2013 to oversee this process, and feedback was provided to the Infection Prevention and Control Committee. Plans to establish a University Hospital Limerick hygiene group were in place. It was confirmed at interview that standardisation of cleaning practices, including segregation of catering staff duties from cleaning staff duties, was not implemented across all sites, but was progressing.

Multiple building projects commenced in University Hospital Limerick, Nenagh Hospital and University Maternity Hospital in 2013. Documentation that was submitted to the Authority demonstrated that risks to patients in relation to building works were managed in line with current national guidelines. There was evidence of executive management oversight, significant Infection Prevention and Control Team input and collaboration between departments and external contractors for managing risk across three sites. These findings show that the risk of infection to patients during building works was being well managed.

University Hospital Limerick captured risks in relation to infection prevention and control on clinical-area risk registers including an insufficient number of isolation rooms. Communication across all sites, regarding this risk, was evident in daily 'safety huddle' management meetings regarding patient admission and discharge activity.

During the on-site component of the review, as outlined in chapter 4, the Review Team observed an overcrowded Emergency Department without isolation facilities for patients with infection. Patients with transmissible infection were managed in the ED for prolonged periods until an inpatient ward isolation room was available. There was no separation of paediatric patients from adult patients in the ED. This was resulting in a risk of infection to children who have not been immunised.

A new ED in University Hospital Limerick, which was due for completion in 2016, will provide the required facilities.

An interim paediatric assessment area with paediatric isolation facilities was planned to replace the three rooms which was being used for paediatric assessment. The Executive Management Team confirmed that these three rooms will be used for isolation of adult patients in the ED when the paediatric assessment area would be opened. ULH stated that creation of additional isolation rooms at ward level was not possible within the existing infrastructure.

A new building with 96 single rooms is planned for University Hospital Limerick and was due to be completed in 2017. Additional single rooms were also planned for Nenagh Hospital in 2016. An interim risk mitigation measure was implemented at ward level whereby patients with specific types of infection were accommodated in multiple occupancy rooms when a single room was unavailable. Mobile personal protective equipment stations were used to facilitate this process. The Authority acknowledges that University Hospital Limerick has recognised this risk and implemented mitigation measures. However, these interventions should be regarded as a temporary remedial measure and not a substitute for single room isolation as recommended.

Documentation that was reviewed by the Authority indicated that risks which were identified across all sites in relation to hand hygiene facilities, waste management, environmental hygiene, equipment decontamination and information technology were addressed using the risk register process. Risks that were identified in clinical areas were addressed at ward level or were escalated to directorate level or higher as required. The Infection Prevention and Control Team confirmed at interview that the new directorate structure effectively facilitated prevention and control of Healthcare Associated Infections risk identification and management in clinical areas.

Prevention and control of Healthcare Associated Infections – surveillance, performance measuring and monitoring

Regular directorate and speciality specific prevention and control of Healthcare Associated Infections metrics, including national key performance indicators, alert organism surveillance data, antimicrobial stewardship data, audit findings and data from national studies, were collated by the infection prevention and control and antimicrobial stewardship teams and were evident in documentation viewed by the Authority.

National HSE key performance indicator data that was viewed by the Authority showed that University Hospital Limerick was not in compliance with the HSE key performance indicator for Meticillin-Resistant *Staphylococcus aureus* (MRSA) bloodstream infection. The Infection Prevention and Control Team performed a detailed analysis on cases of blood stream infection and determined that some episodes of bloodstream infection were associated with the use of intravascular devices. Some preventative measures had been introduced including the use of antiseptic impregnated dressings for central vascular catheters in high risk areas and standardisation of the intravascular device infection prevention and control policy across all sites.

Plans to introduce new blood culture kits and peripheral venous access device insertion packs had been discussed but had not been implemented. The roll out of care bundles* had commenced but had not been implemented across all sites. Healthcare associated bloodstream infections are potentially preventable through the use of evidence-based practices. Measures to reduce the rate of bloodstream infection should include a range of interventions in line with evidence based guidelines. Prevention and control of Healthcare Associated Infection priorities aligned to surveillance and other findings should be clearly identified in University Hospital Limerick management plans. Prevention and control of Healthcare Associated Infection metrics should be clearly communicated to the Executive Management Team and Board so that they can be assured of progress and of appropriate allocation of resources.

The national key performance indicator for *Clostridium difficile* infection was met in University Hospital Limerick, Croom Hospital and Ennis Hospital, but not in Nenagh Hospital, in September and October 2013. All new *Clostridium difficile* isolates were genotyped to detect clusters or linked cases of infection. This information was presented in infection surveillance reports within University Hospital Limerick which were viewed by the Authority. Measures to prevent *Clostridium difficile* cases included early detection and isolation of cases and antimicrobial stewardship.

The reported rate of staff hand hygiene compliance ranged from 77% to 88%. The national key performance indicator was 90%.

Median total antibiotic consumption rate reported in March 2013 ranged from 76% to 94%. The national key performance indicator was 83.7%. Ennis Hospital was in compliance with this indicator. University Hospital Limerick and Nenagh Hospital were not.

* A care bundle is a structured way of improving the processes of care and patient outcomes: a small, straightforward set of evidence-based practices — generally three to five — that, when performed collectively and reliably, have been proven to improve patient outcomes.

University Hospital Limerick participated in the national prevalence survey of Healthcare Associated Infections and antibiotic use in long-term care facilities (HALT) in 2013. Notifiable infectious diseases, organisms and outbreaks were reported to the local departments of public health and the national Health Protection Surveillance Centre (HPSC). Water sample results were analysed as part of a legionella control programme.

Surgical site infection and invasive device-related infection surveillance were not performed in University Hospital Limerick, which, at the time of the Authority's review, was similar to the position of other public acute hospitals across the country. The Infection Prevention and Control team reported that additional resources would have been required to undertake this activity. ULH did not have a unique patient identifier to facilitate patient identification across all sites for surveillance purposes. As discussed at interview, ULH did not have an allocated operational budget for infection prevention and control. An operational budget for infection prevention and control facilitates allocation of resources for the provision of a safe, effective and efficient service to prevent and control HCAs.

Infection Prevention and Control Team

The Authority recognises that there was a qualified and dedicated infection and prevention and control team in ULH which was providing an infection prevention and control service across all directorates and sites. The team was led by a consultant microbiologist and was involved in a broad range of activities in line with best practice. In line with the reconfiguration of ULH, an infection prevention and control nurse was assigned to each directorate and attended directorate meetings approximately every six weeks. Weekly team meetings showed that standardisation of Healthcare Associated Infection surveillance, policies, procedures and guidelines, staff education, outbreak management and clinical audit was progressing across all sites and directorates. Infection prevention and control staff provided advice to ULH committees as required.

Infection Prevention and Control Committee

A new multidisciplinary infection prevention and control committee was formed in 2013. It replaced three committees that had covered five hospitals. It standardised infection prevention and control arrangements across all sites. The committee, chaired by the Clinical Director of the Perioperative Directorate, met quarterly to discuss infection prevention and control issues and to plan infection control activity. Its terms of reference stated that the Infection Prevention and Control Committee was accountable to the Executive Management Team and the Quality and Patient Safety Committee. There were two patient representatives on the Infection Prevention and Control Committee.

There was evidence that ULH engaged with external stakeholders about the prevention and control of Healthcare Associated Infection. The ULH's CEO, a primary care area manager and the ULH's Consultant Microbiologist jointly chair a Mid-West Region Infection Prevention and Control Committee that was meeting quarterly. The committee provided a regional forum for collaboration and discussion among staff in acute and community settings. Terms of reference that were viewed by the Authority did not detail a reporting relationship for this committee.

Communicable/transmissible disease control

Using an infection surveillance software system called ICNet, the Infection Prevention and Control Team reviewed microbiology test results daily to identify patients who were colonised or infected with transmissible (alert) microorganisms or infections. The Infection Prevention and Control Team communicated results to clinical staff and regularly visited wards to provide advice in relation to patients with suspected or confirmed infection. Monitoring for outbreaks of infection was performed through surveillance of alert organisms and patient symptoms. Minutes of Infection Prevention and Control Team meetings record discussion about alert organism surveillance, multi-drug resistant organism trends, management of infected or colonised patients, policy development, staff education and audit. Standardisation of infection prevention and control policies, procedures, protocols and guidelines across all sites and directorates was in progress and was due to be completed by the end of 2014.

Microbiological services

There was access to a clinical microbiology laboratory service in University Hospital Limerick with timely access to results. The availability of this service across all sites was confirmed at interview by the Consultant Microbiologist. Clinical microbiology advice was provided to St John's Hospital as required. Audits of microbiology specimen processing were performed in 2012 and 2013. Documents that were submitted to the Authority showed that delivery, result turnaround times, efficiency and safety in relation to specimen transport, were measured and evaluated. There was 24-hour access to specialist microbiology advice. The microbiology laboratory in University Hospital Limerick was accredited by Clinical Pathology Accreditation (UK) Ltd. ULH also reported at the time of this review that it was preparing for an Irish National Accreditation Board inspection of microbiology services in November 2014.

Outbreak management

Documentation that was submitted to the Authority about outbreaks of infection in 2013 demonstrated that they were effectively managed by the Infection Prevention and Control Team across different sites. Outbreak reports detailing analyses and recommendations were viewed by the Authority. There was evidence that recommendations were implemented and that ULH had successfully managed these outbreaks and shared learning across directorates.

Antimicrobial stewardship

An antimicrobial stewardship team was responsible for antimicrobial policy formulation, audit, evaluation of new agents, monitoring and analysis of antimicrobial usage and staff education in line with national guidelines. Documentation that was provided to the Authority indicated that the Antimicrobial Stewardship Committee met once in 2013. However, there was evidence that monthly meetings were held to review ULH antimicrobial prescribing policy and a related mobile phone app. The antimicrobial prescribing policy submitted to the Authority contained antimicrobial susceptibility data from 2008. ULH confirmed at interview that the revised antimicrobial prescribing policy was not yet complete. Consultant microbiology staff, an infectious disease consultant and an antimicrobial pharmacist educated primary care prescribers as well as non-consultant hospital doctors (NCHDs) across all directorates and hospital sites about antimicrobial use. There was evidence that feedback of antimicrobial usage audit was provided to the Antimicrobial Stewardship Committee and that antimicrobial consumption data was presented at an Infection Prevention and Control Committee meeting. Antimicrobial consumption data was also reported to the HSE biannually.

Unannounced monitoring assessments

Unannounced monitoring assessments for the prevention and control of Healthcare Associated Infections were performed by the Authority during the review period across all sites during the last quarter of 2013. In University Hospital Limerick, Croom Hospital, St John's Hospital and Ennis Hospital the physical environment and patient equipment in assessed areas were clean and well maintained, with some exceptions. In University Maternity Hospital and Nenagh Hospital the physical environment, waste management and cleanliness were not effectively managed in assessed areas. Each hospital published a local quality improvement plan on its website within six weeks of report publication. Quality improvement plans that were submitted by ULH with respect to each hospital indicate that issues which had identified by the Authority in inspection reports were being addressed by ULH (these inspection reports have been reported separately and are available on www.hiqa.ie).

Conclusion

The Authority recognises that significant progress has been made in the reconfiguration of ULH and that this is an evolving process with several competing priorities. An Infection and Prevention and Control Team has been developed to provide an infection prevention and control service across all sites and directorates. At the time of the Authority's review, the integration of corporate and clinical governance structures with clear accountability arrangements was in progress with the establishment of a new Quality and Patient Safety Committee. It was observed that University Hospital Limerick recognised that performance measurement in relation to prevention and control of Healthcare Associated Infections is a priority.

There were gaps in the formal communication of information relating to the prevention and control of Healthcare Associated Infections from the Quality and Patient Safety Committee to the Executive Management Team and the Board of directors. Therefore, the Board and Executive Management Team did not have a robust assurance mechanism for the prevention and control of Healthcare Associated Infections.

Detailed analyses of Healthcare Associated Infection incidents provide an ideal opportunity to share learning across all directorates and sites. The Infection Prevention and Control Team perform detailed analyses in relation to cases of bloodstream infection and *Clostridium difficile* infection. In addition, recommendations are made by the team during and following outbreaks of infection. Learning from these events and outbreaks could be disseminated across all directorates and sites, used to inform infection prevention and control activity and subsequently to provide assurance to the Board and Executive Management Team about the management of the prevention and control of Healthcare Associated Infections.

Healthcare Associated Infections are linked to high morbidity, mortality and costs worldwide. Surveillance of Healthcare Associated Infections in line with internationally agreed surveillance definitions has been shown to reduce the incidence of these infections. There is an opportunity to further develop the infection prevention and control programme by identifying resources in terms of staffing and information technology to enable ULH to facilitate targeted Healthcare Associated Infection surveillance in line with best practice. A unique patient identification numbering system would facilitate infection surveillance.

Notwithstanding the improvements associated with new management and governance arrangements, as outlined earlier in this report, the Emergency Department's physical environment and workload activity was creating an ongoing risk of infection for patients. This is of concern to the Authority as isolation facilities were not available in the Department and were thus exposing paediatric and adult patients to the risk of infection or communicable disease spread. The risk of hospital outbreaks of infection is increased in the absence of appropriate isolation facilities and overcrowding.

Chapter 6 – Effective care (fractured neck of femur)

Introduction

In Ireland approximately 3,000 people are admitted to hospital with a hip fracture each year^(28,29). A hip fracture is the common term used to describe a fractured neck of femur. The *National Strategy to Prevent Falls and Fractures in Ireland's Ageing Population* reports that less than 50% of the people who survive a hip fracture regain their pre-fracture level of function, less than 50% return directly home upon hospital discharge and over 20% require long-term care⁽³⁰⁾. A number of evidence-based international guidelines detail clear quality standards for the management of patients with a hip fracture and thus allow the analysis of effectiveness of care for hip fracture patients^(31,32,33).

The care that was being received by patients with a fractured neck of femur was viewed by the Authority as being an appropriate barometer with which to measure the quality of care that was being offered to patients at ULH. This was due to the significant number of patients who were presenting with hip fractures, the potential negative outcomes for these individuals and the fact that there is a large evidence base to indicate that complications can be reduced if a particular pathway is followed for patients.

The national hip fracture database

A national hip fracture database, the Irish Hip Fracture Database, collects data from hospitals that provide orthopaedic surgery in Ireland in order to monitor standards of care against international recommendations⁽³⁴⁾. The database published its first preliminary report in February 2014*.

At the time of the Authority's review, University Hospital Limerick had been contributing data to the Irish Hip Fracture database since March 2012. All patients with a hip fracture who undergo surgery were entered into this database by University Hospital Limerick. The dataset submitted to the database by the University Hospital Limerick for the six-month period 1 June 2013 to 30 November 2013 was analysed by the Authority. It was reported at interview that there was no formal process for local validation of data following entry of data into the database.

* This preliminary report contained data for the period April 2012-March 2013 submitted by 8 of the 16 hospitals that perform hip fracture surgery nationally. All 16 hospitals are now contributing to the database.

Clinical pathway for patients with a hip fracture

In 2011, University Hospital Limerick developed a local admission pathway for the management of patients with hip fracture to be completed by medical and nursing staff in the Emergency Department and orthopaedic medical staff. A separate orthopaedic nursing care pathway was being used for patients with a hip fracture once they are admitted to the orthopaedic ward. The admission pathway covered patients' management from presentation in the ED through to admission to theatre and included a fast-track protocol for patients who met certain eligibility criteria.

The local admission pathway was supported on its introduction by the availability of a dedicated hip fracture bed with a specialised air mattress which was ring-fenced (that is, exclusively for the use of patients with a hip fracture) daily from 8am to 10pm. However, it was reported at interview that there was no longer a ring-fenced bed available on the orthopaedic ward for patients with a hip fracture and this local pathway was not being consistently used for all patients that were being admitted with hip fracture. This was also confirmed in the healthcare record review where the pathway had not been completed in 19 out of the 20 healthcare records reviewed.

Nationally a draft National Integrated Care Pathway for Hip Fracture has been developed collaboratively by the Irish Gerontological Society, the Irish Society of Chartered physiotherapists, the Irish Institute of Trauma and Orthopaedic surgery and the Association of Occupational Therapists Ireland. The Authority was informed at interview that a decision had been made locally not to continue to develop the local admission pathway but instead to feed into the development of the National Integrated Care Pathway and await its implementation.

As part of the on-site component of the review at ULH, the Review Team conducted a walkthrough following the pathway of a patient with a hip fracture from the patient's presentation at the ED through to admission on the trauma ward. In the course of this walkthrough authorised persons spoke with a small number of patients on the trauma ward who were recovering from hip fracture surgery. These patients indicated general satisfaction with their care pathway including the provision of pain relief and nursing and medical care.

The sections hereinafter follows the pathway of a patient with a hip fracture from presentation at the ED at ULH, to admission on the trauma ward, to discharge and the processes in place at ULH to support and monitor the effectiveness of this pathway.

Emergency Department

Patients with a hip fracture were being admitted through the Emergency Department (ED) at University Hospital Limerick where they were being triaged (prioritised for treatment according to their need for care) at presentation. ULH reported that all patients with a suspected hip fracture were receiving a Manchester Triage score of two – this means that the aim was for the ED doctor to see these patients within 10 minutes of triage.

ULH reported that although there was no document at the time of the Authority's review that detailed the policy on clinical responsibility for handover, the ED doctor was responsible for the patient until they were seen and accepted by the orthopaedic team. Once the patient had been reviewed by the orthopaedic team and a decision to admit had been made, the clinical responsibility for the patient transferred to the orthopaedic team.

Patients with a hip fracture awaiting admission in the University Hospital Limerick's ED were experiencing the same generic risks due to overcrowding as other patients who were waiting in the ED. The ED was not designed to care for patients with a hip fracture for extended time periods. Analysis of the six-month data submitted by ULH showed that the mean* length of time that patients with a hip fracture had waited in the ED prior to being admitted to the ward was 15 hours and 5 minutes (the median** was 6 hours and 39 minutes).

Surgery for hip fracture

In 2007 the British Orthopaedic Association and the British Geriatric Society recommended that all patients with hip fracture who are medically fit should have surgery within 48 hours of admission⁽³¹⁾. The six-month dataset submitted to the authority found that 53% of patients had surgery within 36 hours of presentation to the ED and 72% had their surgery within 48 hours. If surgery was not performed within 36 hours of presentation the primary reason identified for this on the database was that the surgery was cancelled due to a theatre list overrun. This meant that not all cases that had been scheduled to take place on the surgical list for that day could be completed within the allocated time frame. The *Irish Hip Fracture Database Preliminary* report for 2013 found that 77% of patients in the eight participating hospitals received surgery within 48 hours of admission.

* Mean (arithmetic mean): the average value, calculated by summing all the observations and dividing by the number of observations.

** Median: the middle value in a ranked group of observations. This can be a better estimate of the average value if there are extreme outlying values that may skew the arithmetic mean.

The British Orthopaedic Association, National Clinical Effectiveness Committee, and Scottish Intercollegiate Guidelines Network guidelines for the management of hip fracture recommend that patients do not receive hip fracture surgery out of hours^(31,32,33). The six-month dataset showed that only 2% (three out of 129) of patients in University Hospital Limerick had had their surgery outside of the hours 8am to 5pm.

In 2008 Ireland signed up to the World Health Organization's Safe Surgery Saves Lives initiative⁽³⁵⁾. It was acknowledged at interview that the Safe Surgery Saves Lives checklist was not being consistently completed in its entirety for all patients who were undergoing orthopaedic surgery at University Hospital Limerick. This was confirmed as part of the healthcare record review where, although the Safe Surgery checklist was present in the healthcare record of all patients, it had not been completed in its entirety for 16 of the 20 patients.

University Hospital Limerick was operating a trauma theatre from Monday to Friday from 8am to 5pm. It was reported that this is a protected trauma list. However, it was noted that the theatre list can also include elective medically high risk orthopaedic patients. It was reported that, in general, an orthopaedic trauma patient was being prioritised over elective orthopaedic patients on this list but this was being decided on a case-by-case basis. At the weekend there was one emergency theatre open for all surgical specialities and it was reported that this could lead to delays in scheduling hip fracture patients for theatre. Data from the six-month dataset showed that 18% of hip fracture patients during that period had received their surgery at the weekend.

Trauma ward

It was reported that multidisciplinary ward rounds take place each morning at 8am on the trauma ward at University Hospital Limerick. These involve the orthopaedic surgical team, nursing staff, orthopedic clinical nurse specialist and physiotherapists, to discuss patient care and prioritise patients for surgery. The on-call consultant orthopaedic surgeon was subsequently leading a bedside ward round, and lists patients for theatre. Six orthopaedic consultants and 15 non-consultant hospital doctors (two orthopaedic interns, six orthopaedic senior house officers, five orthopaedic registrars and two orthopaedic specialist registrars) were providing orthopaedic services in the Department of Trauma Orthopaedics at ULH. One consultant was on call each day and covered the trauma list for that day. Nursing staff reported that the consultants could be contacted easily and it was not a problem for non-consultant hospital doctors or nursing staff to contact the consultant on call. The orthopaedic consultant roster for each week was available on the hospital intranet and from the hospital's switchboard and it was printed out on the trauma ward to facilitate ease of contact.

It was reported that the majority of patients with a hip fracture were prioritised for admission to the trauma ward (the acute orthopaedic ward) at University Hospital Limerick. This was confirmed through analysis of the six-month data that was submitted to the Authority for which it was recorded that all patients in that period had been admitted to the orthopaedic ward. However, only 23% of these patients were admitted within four hours of presentation to the ED, as recommended by the British Orthopaedic Association and the British Geriatric Society⁽³¹⁾.

Nursing staff in the Department of Orthopaedics and Trauma at University Hospital Limerick had developed a local guideline for the nursing care of a patient with a proximal femoral (hip) fracture. At the time of the review, it was reported that the use of this guideline was being audited but prior to then its use had not been audited or evaluated. No multidisciplinary guidelines for the care of the patient with hip fracture had been developed locally.

Use of the National Early Warning Score on trauma ward

A national early warning score* (NEWS) was introduced in Ireland in 2012 and guidelines to support its implementation were launched nationally in February 2013⁽³⁶⁾. At the time of the review the National Early Warning Score was in use in ULH. An audit was carried out every two months by nursing staff on the Trauma Ward to check the completeness of recording of the NEWS chart and whether variances were acted on appropriately. These showed that compliance with recording of observations twice in 24 hours or as clinically indicated, ranged between 70% and 100%. However, appropriate follow-up action to address a variant NEWS score was not taken in all circumstances with the audit results ranging between 0% and 100%. It was reported that these results were fed back to staff at ward level in order to promote learning. These audit results were reflected in the healthcare record review that was conducted by the Authority, which confirmed that the NEWS observation chart had been used in all 20 patient charts reviewed. However, there was no clear evidence in four of the healthcare records that variant NEWS scores had been appropriately actioned.

Assessment by a geriatrician on the trauma ward

In Ireland, the model of acute surgery recommends that hip fracture patients are admitted under the joint care of consultants in care of the elderly medicine and an orthopaedic surgeon with agreed protocols for pre-operative and after-surgery care.

* Early warning scores facilitate early detection of deterioration in clinical condition by categorising a patient's severity of illness and prompting nursing staff to request a medical review at specific trigger points, utilising a structured communication tool while following a definitive escalation plan.

In 2008 the *Strategy to Prevent Falls and Fractures in Ireland's Ageing Population* recommended the use of falls-risk assessments to prevent further falls in patients who are recovering from a hip fracture⁽³⁰⁾. It was reported that a consultant geriatrician was conducting ward rounds on the Trauma Ward at University Hospital Limerick twice every week. The six-month dataset showed that a consultant geriatrician had seen 82% of patients with a hip fracture during their admission.

It was reported to authorised persons that during the twice-weekly consultant geriatrician-led ward rounds, measures for preventing further fractures were being reviewed. This included assessments for bone protection therapy and falls prevention. Patients' suitability for rehabilitation was also being assessed. The six-month dataset showed that 72% of patients had received a specialist falls assessment or that it was planned for completion as an outpatient and 79% of patients had received a bone medication assessment or it was scheduled for review as an outpatient.

Data is collected by the Irish Hip Fracture database regarding the number of patients with a hip fracture who undergo a medical assessment before their operation. It was noted by the Authority that whether a patient was seen by a geriatrician pre- or post-operatively, this was consistently recorded on the database as 'seen preoperatively by a geriatrician'.

The National Institute for Health and Care Excellence recommend that patients with hip fracture should have their cognitive status assessed, measured and recorded from admission. The abbreviated mental test score is a tool that is used by healthcare professionals to assess a patient's cognitive function.³³ This information was not recorded in the six-month dataset that was submitted by University Hospital Limerick. The healthcare record review that was conducted by the Authority found that there was evidence in only 1 of the 20 charts which were reviewed that an abbreviated mental score had been performed either pre- or post-operatively. Assessment using the abbreviated mental test score is included in the draft national integrated care pathway for patients with a hip fracture.

Discharge process

The healthcare record review that was conducted by the Authority found that an estimated discharge date had not been documented in any of the 20 healthcare record reviews, despite the fact that it is national policy to document an estimated date of discharge on admission^(10,37).

The Irish Hip Fracture Database Preliminary report for 2013 reported that the mean length of stay for patients in the eight participating hospitals was 18 days (median 13 days). The six-month dataset that was reviewed by the Authority found that the mean length of stay for hip fracture patients reported by University Hospital Limerick was 10 days and the median length of stay was eight days.

However, 43% of patients with a hip fracture were transferred to Croom Hospital on their discharge from University Hospital Limerick, thus adding to their total length of stay in hospital. This information is not captured by the Irish Hip Fracture Database.

There is a local protocol in place for the safe inter-hospital transfer of inpatients from University Hospital Limerick to Croom Hospital. The aim of this protocol is to help to ensure the safe and effective transfer of inpatients who require continuing care from University Hospital Limerick to Croom Hospital. It was reported that the ISBAR (Identify yourself; Situation; Background; Assessment; Recommendation) communication tool has been adapted for use in the transfer of patients from University Hospital Limerick to other hospitals and nursing homes, and that documentation had been developed to support this. The Authority was informed that this was being used by healthcare staff to inform the transfer process.

Monitoring the effectiveness of care

University Hospital Limerick's results for the Irish Hip Fracture Database were being discussed every three months at the Hospital's orthopaedic morbidity and mortality meetings. Local orthopaedic doctors and nurses were attending this meeting.

At the time of the Authority's review, the numbers of patients with hip fracture who were waiting in the ED were being reported daily to the Assistant Director of Nursing of the Perioperative Directorate. These were discussed during the daily 'safety huddle' teleconference. The reported numbers were broken into two categories: those waiting more than four hours; and those waiting more than 48 hours. However, it was reported at interview that this data was not officially reported on a monthly or quarterly basis at directorate level.

Nursing staff on the trauma ward were also monitoring a number of key performance indicators for nursing by examining the use of the National Early Warning Score Chart, medication management, falls assessment, nutritional management and correct use of the Waterlow score to reduce the risk of patients developing pressure ulcers.

Healthcare records management

The effective completion and management of healthcare records is essential in ensuring that all relevant parts of the healthcare record are up to date, sufficiently detailed, accurate and available in a timely and appropriate manner at these critical points of clinical decision-making. This is the responsibility of healthcare professionals.

In order to review the quality and safety of care that was being provided to patients who suffer a hip fracture, the Review Team evaluated the healthcare records of 20 patients with a hip fracture, who had been cared for at University Hospital Limerick between 1 June 2013 and 30 November 2013. This care encompassed the pathway of these patients from presentation and diagnosis in the ED, to their access to the orthopaedic ward, timely surgery, management on the ward post-operatively and outcome data.

The Authority recognises that the volume of charts selected for review is comparatively small and that the healthcare record review may not capture a consistently representative sample of the contemporaneous healthcare records of all patients at University Hospital Limerick.

Patient healthcare records which were reviewed were not managed in compliance with the HSE's *Standards and Recommended Practices for Healthcare Records Management*⁽²⁷⁾. Authorised persons found that the healthcare records which were reviewed were difficult to follow and were not always in chronological order. Clinical entries were dated but not always timed and the clinician's job title was not always legible or documented.

The filing of the records was often out of sequence and frequently there were loose pages in the files. Some clinical notes were missing from a number of healthcare records. Authorised persons found it difficult to follow and to effectively validate the patients' clinical pathways and the times of multidisciplinary interventions. Good record keeping is critical in the provision and audit of quality patient care and ULH should as a priority review its current healthcare record management practices.

Conclusion

The orthopaedic team in University Hospital Limerick is proactively measuring its services against international orthopaedic standards through its involvement in the Irish Hip Fracture Database.

While results of this monitoring are discussed at a department level, they are not communicated to Directorate level. University Hospital Limerick has developed a local admission pathway for patients with a fractured neck of femur but this is not implemented for all patients. The National Early Warning Score has been implemented throughout ULH and this was reflected on the Trauma Ward. However, there was evidence that variant Early Warning Scores were not always appropriately actioned. There was evidence that the Safe Surgery Saves Lives Checklist has been introduced in University Hospital Limerick but it was not being consistently completed for all patients undergoing hip fracture surgery.

Data submitted to the Authority indicated that all patients in the sample period had been admitted to the orthopaedic ward as appropriate. However, only 23% of these patients were admitted within four hours of presentation to the ED. Patients with a hip fracture were being accommodated on trolleys for a prolonged length of time, which is sub-optimal.

Daily multidisciplinary early morning ward rounds take place on the Trauma Ward to discuss patient care and prioritise patients for surgery. The orthopaedic trauma list at ULH is not protected as it also accommodates complex elective orthopaedic procedures. This could potentially lead to delays and from the dataset it was evident that in 22% of cases the patients' hip fracture surgery had been cancelled due to a theatre list overrun.

Best practice indicates that hip fracture patients should be admitted under the joint care of consultants in care of the elderly medicine and an orthopaedic surgeon. A consultant geriatrician conducts ward rounds two times a week on the trauma ward at University Hospital Limerick. However, data analysed by the Authority showed that not all hip fracture patients were being seen by a consultant geriatrician during their stays.

Management of healthcare records at ULH was not optimal and not compliant with the HSE's *Standards and Recommended Practices for Healthcare Records Management*.

Chapter 7 – Conclusions

Since the 2009 publication of the Authority's *Report of the investigation into the quality and safety of services and supporting arrangements provided by the Health Service Executive at the Mid-Western Regional Hospital, Ennis*, acute health services in the region have undergone an extensive journey of reconfiguration and reorganisation. The Authority recognises that during any healthcare service reorganisation, it is imperative that there is an enhanced focus on the effectiveness of corporate and clinical governance and operational management arrangements in place in order to continue to deliver high quality, safe patient care. The staff met by the Review Team were committed to providing good safe care at University Limerick Hospital and to improving the services that the hospital provides.

This Review represents the culmination of a long-standing interaction between the Authority, the HSE and the group of hospitals previously known as the Mid-Western Regional Hospital Group that has subsequently become known as ULH. This engagement was grounded in a concern about the effectiveness of the general and clinical governance arrangements to include risk and complaints management processes. The Review also focused closely on previously identified risk issues with particular emphasis on the quality and safety of patient services in the ED.

As a result of the findings of this review, the Authority highlights a series of key risk and challenge areas that will require focused attention by the HSE nationally and the management of services at hospital group level. The identified risk and challenge issues are consistent with, and indicative of, the objectives of the *National Standards for Safer Better Healthcare* and the progress towards self-governed trusts as outlined in the Programme for Government.

Specific actions requiring urgent attention by ULH with the support of the HSE nationally should be aimed at reducing the actual and potential risks to the quality and safety of services associated with overcrowding in the Emergency Department. This issue has been specifically communicated by the Authority during the course of this review.

Leadership Governance and Management

The Authority acknowledges that the substantial governance and operational changes that have been undertaken at ULH have positively impacted on the way in which services are delivered by the hospital group. Such changes included the appointment of a Board of management, a Chairperson of the Board, a group Chief Executive Officer (CEO), an Executive Management Team and a clinical directorate structure. Board engagement with hospital staff and external stakeholders was a positive manifestation of the changes that had been undertaken.

The integration of the governance of University Hospital Limerick, Croom Hospital, Nenagh Hospital, Ennis Hospital and the Maternity Hospital was further confirmation that the group is progressing in a constructive way as a single provider entity. However, the continued parallel governance arrangements in St John's Hospital and the absence of enabling legislation to address such governance anomalies remains problematic and detracts from full and effective integration of services provided by ULH. The assessment of the revised corporate and clinical governance arrangements within the group outlines the fact that the proposed model of hospital groups transitioning to self-governing trusts can be an effective one.

The ULH's Board approves the strategic direction of the organisation. However, the absence of a statutory framework prevents the Board from comprehensively performing its governance and assurance functions. Notwithstanding, the Authority welcomed the fact that the reporting relationship between the HSE's National Director for Acute Hospitals and ULH was described as being both supportive and enabling, thereby allowing the Board of Directors, CEO and Executive Management Team flexibility in reorganising and restructuring their services as appropriate.

Evidence of the effectiveness of the Executive Management Team was apparent in increasing corporate discipline and accountability in relation to financial management and cost-effectiveness. Moreover, the regional reconfiguration of surgical services, the centralisation and governance of emergency services, the redesign of critical care and paediatric services and the implementation of changes to facilitate the Acute Medicine Programme were further evidence of the ability of the Executive Management Team to drive and implement change across ULH.

Another significant achievement was the development of four distinct clinical directorates responsible for the delivery of clinical care across all ULH's sites. Confirmation of the progress of the directorate system of care was evidenced by the fact that throughout ULH staff were familiar with the clinical directorate structures and associated reporting relationships. The directorate system facilitated clear lines of accountability and common goals, planning and measurement of outcomes, and closer working partnerships across sites and specialties. The Authority observed in particular the proactive approach to risk management in the Maternal and Child Health Directorate where key learning from internal and external incidents was brought to the attention of clinical staff.

However, there were gaps in the quality and patient safety processes which must be addressed as a priority. There was no evidence to indicate that the Executive Management Team routinely monitored locally agreed patient experience metrics, such as the number of quality and patient safety audits conducted, complaints management and key performance indicators associated with Healthcare Associated Infection.

There were also key non-compliances with national targets, such as the management of attendances in the context of patient waiting times and pre-hospital emergency care ambulances waiting to transfer patients into the ED; elective procedures (surgical and medical) conducted on the day of admission; and the number of delayed patient discharges.

Prevention and control of Healthcare Associated Infections

The Authority reviewed the impact that the reconfiguration of services and the aligned governance structure had had on ULH's compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.

The review identified that a well qualified and dedicated Infection and Prevention and Control Team provided a service across all directorates and sites, with the exception of St John's, which had a separate dedicated team.

The Authority noted that infection outbreaks were effectively managed by the Infection Prevention and Control Team and there was evidence that recommendations made by the team following an outbreak were being implemented.

Risks identified in relation to the prevention and control of Healthcare Associated Infections were documented and appropriately escalated. The risk of infection to patients during building works was well managed, and plans to standardise cleaning practices including segregation of catering staff duties from cleaning staff duties were progressing.

ULH acknowledged that performance measurement in relation to the prevention and control of Healthcare Associated Infections must be a priority for the immediate future. National HSE key performance indicator data viewed by the Authority showed that University Hospital Limerick was not in compliance with the HSE key performance indicator for Meticillin-Resistant *Staphylococcus aureus* (MRSA) bloodstream infection. The reported rate of staff hand hygiene compliance ranged from 77% to 88%. The national key performance indicator is 90%.

The integration of corporate and clinical governance structures with clear accountability arrangements is in progress with the establishment of a new Quality and Patient Safety Committee. However, there were gaps in the formal communication of information relating to the prevention and control of Healthcare Associated Infections from the Quality and Patient Safety Committee to the Executive Management Team and the Board of directors. Therefore the Board and Executive Management Team did not, at the time of this review, have a comprehensive corporate assurance mechanism for the prevention and control of Healthcare Associated Infections.

Patient care pathway – fractured neck of femur

University Hospital Limerick has developed a local admission pathway for patients with a fractured neck of femur but this is not yet implemented for all patients. The orthopaedic team in University Hospital Limerick is proactively measuring its services against international orthopaedic standards through its involvement in the Irish Hip Fracture Database.

Best practice indicates that hip fracture patients should be admitted under the joint care of consultants in care of the elderly medicine and orthopaedic surgery. A consultant geriatrician conducts twice weekly ward rounds on the trauma ward at University Hospital Limerick. However, there was evidence that not all hip fracture patients were being seen by a consultant geriatrician during their stay.

Data submitted by ULH indicated that all patients in the sample period had been admitted to an orthopaedic ward as appropriate. However, only 23% of these patients were admitted within four hours of presentation to the ED. Moreover, 22% of patients requiring emergency hip fracture surgery had their surgery cancelled due to a theatre list overrun. While results of this monitoring are discussed at a departmental level, the results are not formally communicated at directorate or corporate levels. As a result, the required action specific to the corporate commitment to the local pathway and its outcomes is reflected in the schedule of risks requiring action in this report.

Emergency Department

The single most significant risk observed by the Authority in ULH during the course of this review was the persistent overcrowding in the Emergency Department (ED). The overcrowding impacted negatively on patients (adults and children) and on staff. It impeded access to patients for care and observation, reduced privacy and dignity, increased the risk of transmission of infection and prevented adequate cleaning of the department.

ULH had controls in place to ensure that critically ill ventilated patients waiting to transfer to the Intensive Care Unit (ICU) or the High Dependency Unit (HDU) are managed and cared for by competent clinical staff. However, there were delays in transferring a patient from the Emergency Department to the Intensive Care Unit and or High Dependency Unit. There was no single individual responsible for the management of the ICU and the HDU. The lack of a single governance and management system was reported as a factor that contributed to delays in decision making about the transfer of patients from ICU, HDU, ED and inpatient wards. It is essential that the Executive Management Team immediately review the current arrangements and implement a single clinical governance structure with clearly identifiable management and accountability arrangements.

ULH had completed refurbishment work in the ED to accommodate paediatric services. However, at the time of the review this facility was not in use. Therefore paediatric patients were assessed and managed in a chronically overcrowded environment with no audiovisual separation from adults. There was only one toilet in the main ED for all children and adult patients.

Furthermore, ULH defined paediatric ED attendees as 0-14 years up to the eve of their 14th birthday. Categorisation of 14-16 year old children as adults is inappropriate – this categorisation resulted in children aged between 14-16 years being managed in the ED as if they were adults. The Authority is clearly of the view that the use of the newly developed paediatric space should be expedited to reduce risk, enhance safety and improve the experience of children and their families while attending the ED.

The Authority believes it is unacceptable that admitted ill patients were being left for extended periods in an environment that was totally unsuitable. The Authority subsequently escalated this risk during the review process at local corporate and national HSE levels.

The Authority acknowledges and welcomes the fact that longer term solutions for this issue are vested in the development of a new facility. However, the risk to patients attending the Emergency Department is an issue for now and the intervening period. ULH, in consultation with the National Director of Acute Hospitals in the HSE, must find a range of interim solutions to deal with bed capacity, excessive trolley waits and overcrowding within the Emergency Department.

As outlined above, the Authority highlights a series of key risk and challenge areas that will require focused attention by ULH with the support of the HSE nationally. These identified risk and challenge issues are consistent with, and indicative of, the objectives of the *National Standards for Safer Better Healthcare* and the progress towards self-governed trusts as outlined in the Programme for Government.

This report, and specifically the risk areas identified as requiring action, must now be reviewed by ULH and the HSE nationally and published in a quality improvement plan (QIP) on the ULH websites.

This QIP must be approved and signed by the service provider's identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services. It is the responsibility of ULH to formulate resource requirements and execute its QIP to completion.

Risk issues requiring action

	Risk issue	Priority status
1	Increases in service demand and associated risks in the Emergency Department to ensure the quality and safety of healthcare delivered to service users.	High
2	Resources are not being optimally used across all of the group's hospital sites with specific focus on bed availability for patients with complex needs at University Hospital Limerick (model 4 hospital).	High
3	ULH underperformance against national targets impacting on patient waiting times length of stay and inpatient bed availability.	High
4	Compromised corporate and clinical governance particularly in the Intensive Care Unit and High Dependency Unit.	High
5	Practice of caring for patients aged between 14 and 16 years in the Emergency Department for extended periods.	High
6	Absence of meaningful analysis and discussion of patient complaints, trends in clinical incidents, adverse events and the prevention and control of Healthcare Associated Infections at Board level.	High
7	Shortfalls in patient record keeping in line with the HSE's national policy.	High
8	Inconsistent implementation of the National Policy and Procedure for Safe Surgery.	High
9	Absence of clear interim advice and direction from the Department of Health and the HSE in relation to integrated governance arrangements between voluntary and public services in the context of emerging hospital groups and single boards.	High
10	Absence of a health and safety committee at ULH.	Medium
11	Inconsistent implementation of an integrated care pathway for hip fracture patients.	Medium

	Risk issue	Priority status
12	Inadequate structures, systems and processes in place to effectively manage and implement the programme to prevent and control Healthcare Associated Infections. With specific emphasis on:	
	i. Requirement for isolation facilities for adult and paediatric patients in the Emergency Department as a matter of urgency.	High
	ii. Reducing the rate of bloodstream infection with full implementation of measures to prevent invasive device related infection.	High
	iii. Monitoring and benchmarking of the prevention and control of Healthcare Associated Infection performance against agreed local and national service objectives.	Medium
	iv. The use of Healthcare Associated Infection surveillance data to inform targeted prevention measures with specific assurance at Executive Management Team and Board levels within the group.	Medium
	v. Formal recording, analysis and assurance in relation to Healthcare Associated Infection adverse events at all levels within the group.	Medium
	vi. The development and expansion of a Healthcare Associated Infection surveillance programme on surgical site infections.	Medium

Glossary of terms and abbreviations

<p>Accountability: being answerable to another person or organisation for decisions, behaviour and any consequences.</p>
<p>Adverse event: an incident that results in harm to a patient.</p>
<p>Advocacy: the practice of an individual acting independently of the service provider, on behalf of, and in the interests of a patient, who may feel unable to represent themselves.</p>
<p>An Bord Altranais: the Nursing and Midwifery Board of Ireland (NMBI) which is the regulatory body for the nursing profession in Ireland.</p>
<p>Antimicrobial stewardship: this involves selecting an appropriate drug and optimising its dose and duration to cure an infection while minimising toxicity and conditions for selection of resistant bacterial strains.</p>
<p>Benchmarking: a continuous process of measuring and comparing care and services with similar service providers.</p>
<p>Best available evidence: the consistent and systematic identification, analysis and selection of data and information to evaluate options and make decisions in relation to a specific question.</p>
<p>Care pathway: a multidisciplinary care plan that outlines the main clinical interventions undertaken by different healthcare professionals in the care of patients with a specific condition or set of symptoms.</p>
<p>Casemix: the types of patients and complexity of their condition treated within a healthcare service, including diagnosis, treatments given and resources required for care.</p>
<p>Clinical audit: a quality improvement process that seeks to improve patients' care and outcomes through systematic review of care against explicit criteria and the implementation of change.</p>
<p>Clinical director: the senior clinical leader with delegated responsibility and accountability for patient safety and quality throughout a healthcare organisation.</p>
<p>Clinical directorate: a team of healthcare professionals within a specialty, or group of specialties.</p>

<p>Clinical governance: a system through which service providers are accountable for continuously improving the quality of their clinical practice and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish. This includes mechanisms for monitoring clinical quality and safety through structured programmes, for example, clinical audit.</p>
<p>Clinical guidelines: systematically developed statements to assist healthcare professionals and patients' decisions about appropriate healthcare for specific circumstances.</p>
<p>Clinical nurse manager (CNM): a nurse more senior than a staff nurse but more junior than an assistant director of nursing. A CNM 2 is more senior than a CNM 1.</p>
<p>COMPASS©: an education programme for the early detection and management of deteriorating patients.</p>
<p>Competence: the knowledge, skills, abilities, behaviours and expertise sufficient to be able to perform a particular task and activity.</p>
<p>Complaint: an expression of dissatisfaction with any aspect of service provision.</p>
<p>Concern: a safety or quality issue regarding any aspect of service provision raised by a patient, service provider, member of the workforce or general public.</p>
<p>Consultant: a consultant is a registered medical practitioner in hospital practice who, by reason of his/her training, skill and experience in a designated specialty, is consulted by other registered medical practitioners and undertakes full clinical responsibility for patients in his/her care, or that aspect of care on which he/she has been consulted, without supervision in professional matters by any other person. Consultants include surgeons, physicians, anaesthetists, pathologists, radiologists, oncologists and others.</p>
<p>Core hours: core working hours can be classified as the working hours of 9am to 5pm, Monday to Friday.</p>
<p>Corporate governance: the system by which services direct and control their functions in order to achieve organisational objectives, manage their business processes, meet required standards of accountability, integrity and propriety and relate to external stakeholders.</p>
<p>Critical care services: service for the provision of medical care for a critically ill or critically injured patient.</p>
<p>Culture: the shared attitudes, beliefs and values that define a group or groups of people and shape and influence perceptions and behaviours.</p>

<p>Day unit: a ward in an acute hospital for day patients to stay in to recover from their treatment.</p>
<p>DoH: Department of Health.</p>
<p>Early warning score (EWS): EWS is a physiologically-based system of scoring a patient's condition to help determine severity of illness and predict patient outcomes.</p>
<p>ED: Emergency department.</p>
<p>Effective: a measure of the extent to which a specific intervention, procedure, treatment, or service, when delivered, does what it is intended to do for a specific population.</p>
<p>Elective: an elective procedure is one that is chosen (elected) by the patient or is planned by the physician that is advantageous to the patient but is not urgent.</p>
<p>Emergency care: the branch of medicine that deals with evaluation and initial treatment of medical conditions caused by trauma or sudden illness.</p>
<p>Evaluation: a formal process to determine the extent to which the planned or desired outcomes of an intervention are achieved.</p>
<p>Evidence: data and information used to make decisions. Evidence can be derived from research, experiential learning, indicator data and evaluations.</p>
<p>Evidence-based practice: practice which incorporates the use of best available and appropriate evidence arising from research and other sources.</p>
<p>Governance: in healthcare, an integration of corporate and clinical governance; the systems, processes and behaviours by which services lead, direct and control their functions in order to achieve their objectives, including the quality and safety of services for patients. See also 'Clinical governance' and 'Corporate governance' above.</p>
<p>GP: general practitioner. A doctor who has completed a recognised training programme in general practice and provides personal and continuing care to individuals and to families in the community.</p>
<p>Healthcare Associated Infections: infections that are acquired as a result of healthcare interventions.</p>
<p>Healthcare professional: a person who exercises skill or judgment in diagnosing, treating or caring for service users, preserving or improving the health of service users.</p>

<p>Healthcare record: all information in both paper and electronic formats relating to the care of a service user.</p>
<p>HDU: high dependency unit – a unit in a hospital that offers specialist nursing care and monitoring to ill patients. It provides greater care than is available on general wards but less than is given to patients in intensive care.</p>
<p>Hospital In-Patient Enquiry (HIPE): an information technology system used to collect information on inpatients at Irish acute hospitals. Information is provided by the hospitals to the central system administered by the Economic and Social Research Institute (ESRI).</p>
<p>HSE: Health Service Executive.</p>
<p>Infection control: the discipline and practice of preventing and controlling Healthcare Associated Infections and infectious diseases in a healthcare organisation.</p>
<p>Inpatient: a patient who remains in hospital while receiving medical or surgical treatment.</p>
<p>ICU: intensive care unit – a unit in a hospital providing complex support for multi-organ failure and or advanced respiratory support.</p>
<p>Irish Maternal Early Warning System (I-MEWS): a system for the early detection of illness during pregnancy and after a woman has had a baby.</p>
<p>Key performance indicator (KPI): specific and measurable elements of practice that can be used to assess quality and safety of care.</p>
<p>Methodology: a system of methods, rules and procedures used for the delivery of a project.</p>
<p>Microbiologist: a specialist in microbiology.</p>
<p>Microbiology: the branch of biology that deals with micro-organisms and their effects on other living organisms.</p>
<p>Multidisciplinary: an approach to the planning of treatment and the delivery of care for a service user by a team of healthcare professionals who work together to provide integrated care.</p>
<p>NEWS: National Early Warning Score. This is a nationally agreed early warning score for the early recognition and management of acutely ill adult patients.</p>

<p>Non-consultant hospital doctor (NCHD): terminology used in Ireland to describe doctors that have not yet reached hospital consultant grade. NCHDs include specialist registrars, registrars, senior house officers and interns.</p>
<p>Non-executive board member: a member of the board of an organisation who does not form part of the Executive Management Team, nor are they an employee of the organisation.</p>
<p>On call: the provision or availability of clinical advice in addition to or outside of core working hours.</p>
<p>Out of hours: outside the core working hours of 9am to 5pm, Monday to Friday.</p>
<p>Outpatient department (OPD): a hospital department which is primarily designed to enable consultants and members of their teams to see patients at clinics for scheduled care. Patients attending the outpatient department may be a new patient referral or patients who are attending for review following discharge from hospital or had previously attending the OPD.</p>
<p>Paediatrics: the branch of medicine concerned with the treatment of infants and children.</p>
<p>Patient safety incident or event: an event or circumstance which could have resulted, or did result, in unnecessary harm to a patient. Patient safety incidents include an incident which reached the patient and caused harm (adverse event); an incident which did not reach the patient (near miss); and an incident which reached the patient, but resulted in no discernable harm to the patient (no harm event).</p>
<p>Policies, procedures, protocols and guidelines (PPPGs): a set of statements or commitments to pursue courses of action aimed at achieving defined goals.</p>
<p>Policy: a written operational statement of intent which helps staff make appropriate decisions and take actions, consistent with the aims of the service provider, and in the best interests of service users.</p>
<p>Protocol: a detailed plan of a medical treatment or procedure.</p>
<p>Risk management: the systematic identification, evaluation and management of risk. It is a continuous process with the aim of reducing risk to an organisation and individuals.</p>
<p>Risk register: a risk register is a risk management tool. It acts as a central repository for all risks identified by an organisation and, for each risk, includes information such as risk probability, impact, controls and risk owner.</p>
<p>Risk: in healthcare, the likelihood of an adverse event or outcome.</p>

<p>Service agreement (SA): a framework for the provision of services, including details of quality and governance requirements.</p>
<p>Service provider: any person, organisation, or part of an organisation delivering healthcare services [as described in the Health Act 2007 Section 8(1)(b)(i)–(ii)] on behalf of the HSE.</p>
<p>Service user: the term service user includes people who use healthcare services (this does not include service providers who use other services on behalf of their patients and service users, such as general practitioners [GPs] commissioning hospital laboratory services); parents, guardians, carers and family and potential users of healthcare services. The term service user is used throughout this document, but occasionally the term patient is also used where it is more appropriate.</p>
<p>Service: anywhere health or social care is provided. Examples include, but are not limited to, acute hospitals, community hospitals, district hospitals, health centres, dental clinics, general practitioner (GP) surgeries, homecare, and so on.</p>
<p>Skill-mix: the combination of competencies including skills needed in the workforce to accomplish the specific tasks or perform the given functions required for safe high quality care.</p>
<p>SOP: standard operating procedure.</p>
<p>Stakeholder: a person, group or organisation that affects or can be affected by the actions of, or has an interest in, the services provided.</p>
<p>Terms of reference: a set of terms that describe the purpose and structure of a project, committee or meeting.</p>
<p>The Authority: the Health Information and Quality Authority.</p>
<p>Triage: the process in which patients are sorted according to their need for care. The process is governed by the kind of illness or injury, the severity of the problem, and the facilities available.</p>
<p>Undifferentiated patients: all types of patients with any degree of seriousness or severity.</p>
<p>Ventilator: a machine that mechanically moves breathable air into and out of the lungs</p>
<p>Workforce: the people who work in, for or with the service provider. This includes individuals that are employed, self-employed, temporary, volunteers, contracted or anyone who is responsible or accountable to the organisation when providing a service to the service user.</p>

Appendix 1 – Specified Features focused on in this review

National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
Leadership, Governance and Management	<p>Standard 5.1</p> <p>Service providers have clear accountability arrangements to achieve the delivery of high quality, safe and reliable healthcare.</p>	<p>5.1.1 An identified individual whose role includes:</p> <ul style="list-style-type: none"> – having overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services – leading a governance system that clearly specifies, delegates and integrates corporate and clinical governance – formally reporting on the quality and safety of the service through its relevant governance structures.
		<p>5.1.2 When a service is located on more than one site, the identified individual delegates accountability and responsibility for quality and safety of services to an identified person who is involved in the management and delivery of the service and who is at an appropriate level within the governance structure.</p>
	<p>Standard 5.2</p> <p>Service Providers have formalised governance arrangements for assuring the delivery of high quality, safe and reliable healthcare.</p>	<p>5.2.2 Governance arrangements that ensure the primary focus of the service is on quality and safety outcomes for service users. These arrangements include regular review of information relating to quality and safety outcomes for service users.</p>

National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
	<p>Standard 5.4</p> <p>Service providers set clear objectives and develop a clear plan for delivering high quality, safe and reliable healthcare services.</p>	<p>5.4.4 Monitoring the performance of the service against service objectives, benchmarking and managing and reporting on this performance through the relevant governance structures.</p>
<p>Leadership, Governance and Management</p>	<p>Standard 5.5</p> <p>Service providers have effective management arrangements to support and promote the delivery of high quality, safe and reliable healthcare services.</p>	<p>5.5.3 Arrangements to manage increases or decreases in service demand that ensure the quality and safety of healthcare delivered to service users.</p>
	<p>Standard 5.6</p> <p>Leaders at all levels promote and strengthen a culture of quality and safety throughout the service.</p>	<p>5.6.1 Active promotion and strengthening of a culture of quality and safety through the mission statement, service design, code of governance (which includes a code of conduct and management of conflict of interest), allocation of resources and training, development and evaluation processes.</p> <p>5.6.3 Facilitation of leaders at all levels in maintaining and improving the skills, knowledge and competencies to fulfil their roles and responsibilities in delivering high quality and safe care.</p>

National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
Leadership, Governance and Management	<p>Standard 5.7</p> <p>Members of the workforce at all levels are enabled to exercise their personal and professional responsibility for the quality and safety of services provided.</p>	<p>5.7.2 Promotion of a culture of openness and accountability throughout the service, so that the workforce can exercise their personal, professional and collective responsibility to report in good faith any concerns that they have in relation to the safety and quality of the service. Individuals reporting these concerns are not negatively affected as a result.</p>

National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
	<p>Standard 5.8</p> <p>Service providers have systematic monitoring arrangements for identifying and acting on opportunities to continually improve the quality, safety and reliability of healthcare services.</p>	<p>5.8.1 The proactive identification, management, reduction and elimination of risks, including clinical, financial and viability risks to safeguard service users.</p>
<p>Leadership, Governance and Management</p>		<p>5.8.2 Proactive identification, documentation, monitoring and analysis of patient-safety incidents. Learning from these incidents is communicated internally and externally and used to improve the quality and safety of the service.</p>
	<p>Standard 5.11</p> <p>Service providers act on standards and alerts, and take into account recommendations and guidance, as formally issued by relevant regulatory bodies as they apply to their service.</p>	<p>5.8.3 The use of information from monitoring of performance to improve the quality and safety of the service.</p> <p>5.8.7 Proactive approach to learning from findings and recommendations from national and international reviews and investigations.</p> <p>5.11.1 Regular reviews of standards, guidance, alerts and recommendations formally issued by regulatory bodies in order to determine what is relevant to the services they provide, and taking action to address any identified gaps.</p>

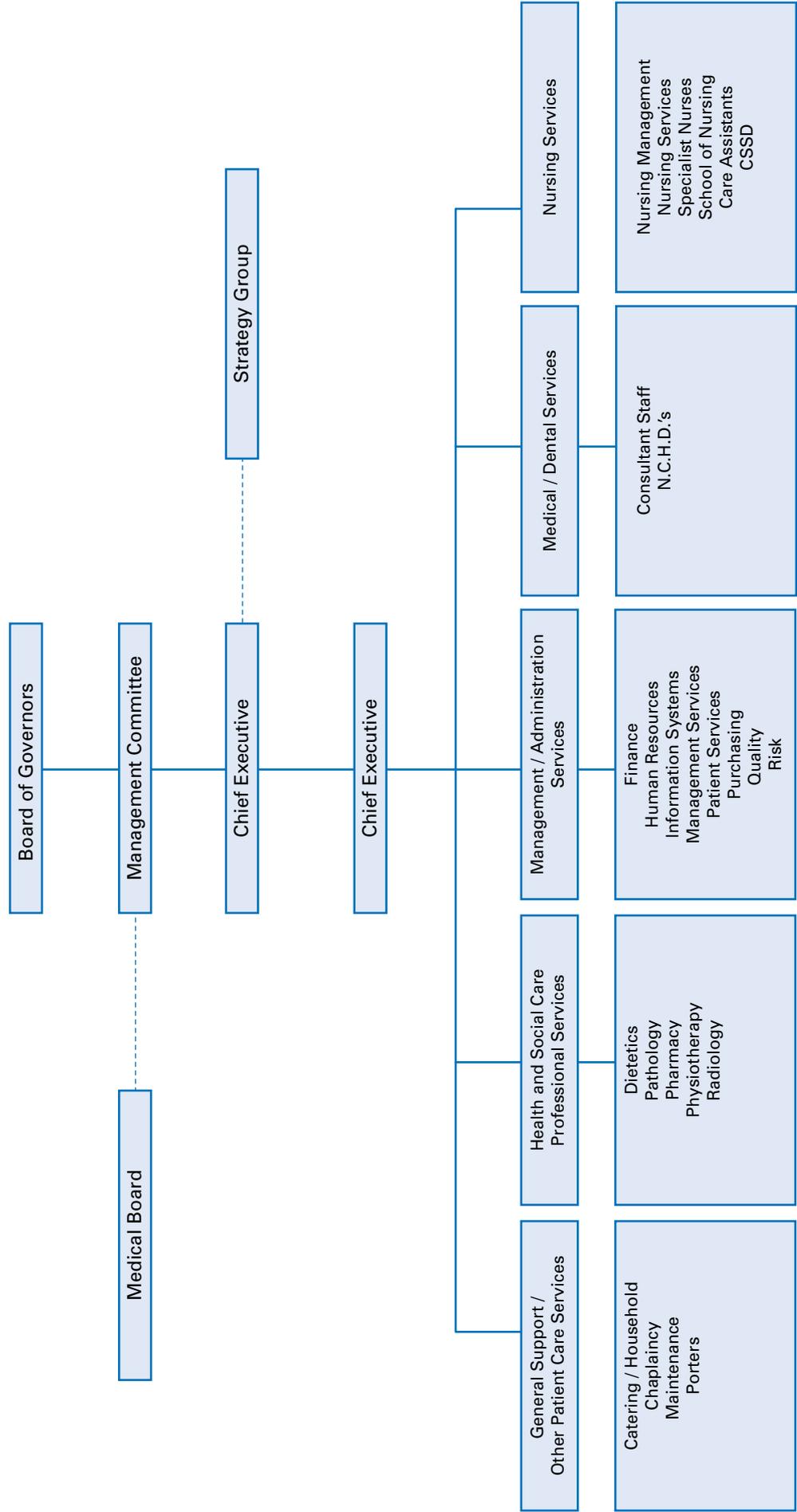
National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
Effective Care	<p>Standard 2.1</p> <p>Healthcare reflects national and international evidence of what is known to achieve best outcomes for service users.</p>	<p>2.1.2 Use of National Clinical Guidelines and nationally agreed protocols, care bundles and care pathways where available.</p> <p>2.1.4 A clearly documented risk assessment when services are unable to fully implement National Clinical Guidelines and appropriate action taken to ensure the quality and safety of services.</p>
	<p>Standard 2.2</p> <p>Care is planned and delivered to meet the individual service user's initial and ongoing assessed healthcare needs, while taking account of the needs of other service users.</p>	<p>2.2.2 Assessment of the service user's individual healthcare needs by the healthcare professional or team with the necessary competencies and information to plan for and deliver healthcare to the service user.</p>
Effective Care	<p>Standard 2.3</p> <p>Service users receive integrated care which is coordinated effectively within and between services.</p>	<p>2.3.1 Formally agreed systems, when care is provided by more than one service provider, to actively coordinate the provision of care. This is done in partnership with service users while respecting their confidentiality.</p>

National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
	<p>Standard 2.4</p> <p>An identified healthcare professional has overall responsibility and accountability for a service user's care during an episode of care.</p>	<p>2.4.3 Timely, formal handover of information and accountability for the overall care of a service user when they move within or between services and the responsible healthcare professional changes; keeping the service user informed of these changes and making explicit the change of healthcare professional and documenting this.</p>
	<p>Standard 2.5</p> <p>All information necessary to support the provision of effective care, including information provided by the service user, is available at the point of clinical decision making.</p>	<p>2.5.3 Ready availability of accurate, up-to-date and easily retrievable high quality information, including information from the service user, to healthcare providers involved in each individual's care.</p>
	<p>Standard 2.6</p> <p>Care is provided through a model of service designed to deliver high quality, safe and reliable healthcare.</p>	<p>2.6.2 Delivery of care using high quality, safe and reliable models of service delivery that have the required clinical services, meet legislative requirements and take into account best available evidence, national policies, National Clinical Guidelines if available, local population health needs and available resources.</p>

National Standards for Safer Better Healthcare Theme	Standards	Specified Feature
	<p>Standard 2.7</p> <p>Healthcare is provided in a physical environment which supports the delivery of high quality, safe, reliable care and protects the health and welfare of service users.</p>	<p>2.7.3 A physical environment that is planned, designed, developed and maintained to achieve the best possible outcomes for service users for the resources used.</p> <p>2.7.5 A physical environment that is developed and managed to minimise the risk to service users and members of the workforce from acquiring a Healthcare Associated Infection.</p>
Effective Care	<p>Standard 2.8</p> <p>The effectiveness of healthcare is systematically monitored, evaluated and continuously improved.</p>	<p>2.8.1 Use of relevant national performance indicators and benchmarks, where they exist, to monitor and evaluate the quality and safety of the care and its outcomes.</p> <p>2.8.2 Where national metrics do not exist, the development or adoption of performance indicators and benchmarks in accordance with best available evidence to monitor and evaluate the quality and safety of the care provided and outcomes.</p> <p>2.8.5 Monitoring and evaluation of performance by developing and implementing clinical and non-clinical audits and implementing improvements based on the findings.</p>

Appendix 2 – St John’s Hospital Governance Structure*

Governance / Management Organogram



*Source: St John’s Hospital, Limerick

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